

[Report of the Medical Officer of Health for Wandsworth District, The Board of Works (Clapham, Putney, Streatham, Tooting & Wandsworth)].

Contributors

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REPORT
SANITARY DEPARTMENT.

REPORT

ON THE

SANITARY CONDITION

OF THE SEVERAL PARISHES COMPRISED IN THE

WANDSWORTH DISTRICT,

DURING THE YEAR 1878.

BY THE

MEDICAL OFFICERS OF HEALTH.

LONDON

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To the Board of Works for the Wandsworth District.

GENTLEMEN,

We have the honour to present the twenty-third Annual Report on the health and sanitary condition of the Wandsworth District.

The death-rate of the year 1878 shows a considerable increase upon that of 1877; but we think we have been able in the introductory pages, and also in several of the local summaries, to prove that there is no reason for apprehension or dissatisfaction on that account, as the increase is entirely among diseases over whose origin and incidence we have no control; and as there is on the contrary a decrease in those diseases which are capable of limitation by the exercise of sanitary precautions.

The year has also been distinguished by unusual activity in sanitary work in your district, but the suggestions we have had occasion to make in the following pages are evidence of the vast amount of work yet unaccomplished.

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HEALTH AND SANITARY CONDITION OF THE ENTIRE DISTRICT.

THE exceptionally low mortality of the year 1877 tells with somewhat disparaging effect upon the mortality of the past year. A little study, however, of the statistics presented in the following pages will convince the reader that the increase is only partially a *real* one, representing merely one of those fluctuations in the tide of life of which the mortality of 1877 might be called an ebb. Linked with the death-history of previous years the past year's mortality appears natural if not diminished. The increase is due entirely to the greater fatality from Measles, Whooping Cough, Diarrhœa, and Lung Diseases, and confined wholly to the extremes of life, especially the period of infancy. The year was a moist one, the average rainfall being exceeded considerably (4·9 inches). Towards the close great cold was experienced, although the temperature of the whole year was above the average. These were the predisposing causes of the increased mortality.

Population.—It has been the custom during the

years immediately preceding a census to regret the absence of reliable data upon which to calculate our rates of mortality, &c. It is manifestly absurd to estimate the population of rapidly-increasing districts by a method which is made to apply to stagnant if not diminishing districts as well, viz., by the rate of increase found to prevail between the two last census years. Such an estimate invalidates all statistics founded upon it. In the introductory pages of our more recent Annual Reports a method was explained for calculating the population by the number of births occurring during the year, for it has been observed that the number of births bears a fixed ratio to the number of people among whom they occur. That is, the births are not subject to those fluctuations which occur among the deaths, and the average number of births per 1,000 in each district being determined, the discovery of the population from the total number of births is a simple matter. The average births for the entire district, calculated at census years, has been found to be 34·5 per 1,000, or 1 in 29. The population of the district would therefore be nearly 190,000, estimated according to this method; this might be called the *estimated* population. However highly we may think of it, we are not at liberty to make use of it for statistical purposes, and must revert to the plan employed by the Registrar-General. The population according to the latter mode of estimating is 164,812, which might be called the *official* population.

Births and Birth-rate.—The number of births registered during the year 1878 was 6,508. The table below illustrates the steady increase in the number of births year by year. No less than 309 more births occurred during this year than in 1877. The birth-rate is 39·4 per 1000, or 1 in 25, founded upon the official population, which is an absurdly high rate, and is evidence that the population is greatly underestimated. Of the

above births 3,326 were of males, and 3,182 of females. The birth-rate of London is 36·2.

Deaths and Death-rate.—During 1878, 3,275 deaths were registered, of which 1,630 were of males, and 1,645 of females. The death-rate, according to the official population, is 19·8 per 1,000. In fixing the death-rate of so large a district the question of population is of paramount importance, and we submit our own estimated population to notice, at all events, in giving this calculation. According to our estimate the death-rate is 17·2 per 1,000. The annexed table shows that while 1878 must

Year	1871	1872	1873	1874	1875	1876	1877	1878
Births	4380	4540	5053	5221	5529	5999	6159	6508
Birth-rate per 1000...	34·5	34·4	36·4	36·5	37·3	39·5	38·6	39·4
Deaths	2867	2421	2580	2796	3096	3154	2991	3275
Death-rate per 1000	22·6	18·3	18·7	19·5	20·87	20·0	18·7	19·8

own an increase upon 1877, it has no more than a normal, if not diminished, mortality as compared with many years of the series, always bearing in mind that each year from the census (1871) increased the disparity between the official and the estimated population, and, therefore, unduly increased the death-rates. The average rate is 20·0 per 1,000 in the above table.

The death-rate of the metropolis was 23·5 in 1878—a low mortality when we consider the density of the population. In fact, according to the Registrar-General, we are entitled, judging from other cities, to expect from the density of the population, a rate of 35·2 per 1,000. This low death-rate has been ascribed by the Registrar-

General to the "special systems of drainage and cleanliness in use in London;" and we may, therefore, congratulate the Wandsworth District Board upon the low death-rate prevailing within its jurisdiction as an outcome of the sanitary improvements and provisions of which it has been the source. The mortality in the 20 largest cities of England was 24·2 per 1,000, and, including Edinburgh, Glasgow and Dublin, 24·4, and that of 50 other town districts 23·0. The table now presented shows the official population, total deaths and death-rate in the five sub-divisions of the Wandsworth District.

SUB-DISTRICTS.	Officially estimated Population in the middle of		Deaths.		Death-rate.			Excluding Non-Parishioners who have Died in Public Institutions.
	1877	1878	1877	1878	1877	1878	per 1000	1878
Battersea	75,606	79,068	1,726	1,803	1 in 43	1 in 43	22·7	1 in 49
Wandsworth	23,806	24,449	384	422	1 in 62	1 in 57	18·1	1 in 70
Clapham	31,381	32,031	467	580	1 in 67	1 in 55	17·2	1 in 56
Streatham, Tooting, and Balham	17,227	17,667	244	284	1 in 70	1 in 62	16·7	In- appreci- able dif- ference
Putney & Roehampton	11,287	11,597	170	186	1 in 66	1 in 62	16·0	

The excess of births over deaths (*i.e.* the *natural* increase of the population) was 3,233, and the rate 19·8 per 1,000.

Causes of Death.—The mortality statistics for the whole district will be found as usual in the first table of the Appendix. The total deaths occurring in each sub-district are to be found in the first five columns, and the sex, age and social position represented in the remaining columns. This table it has been of late years thought

desirable to supplement with one which presents a ten years' history, so to speak, of our district mortality.

DISEASES. And other causes of Death		1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878
Classes :—												
1. Zymotic	(Small Pox.....	2	21	15	377	26	9	5	3	26	57	19
	Measles.....	35	52	46	52	86	55	66	27	88	64	84
	Scarlatina.....	66	133	352	126	26	2	94	134	86	58	39
	Diphtheria ...	27	14	12	6	26	11	12	28	15	7	19
	Quinsy	1	...	4	1	2	1	2	...	...	...	1
	Croup	20	22	25	13	18	21	40	26	27	20	39
	Whooping } Cough	77	96	51	52	108	74	89	107	126	73	149
	Typhus and } other Fevers }	66	61	68	54	52	65	48	39	47	64	39
	Erysipelas ...	12	8	13	22	13	12	20	24	13	13	5
	Metria, } Childbirth }	21	23	16	13	15	28	34	15	26	20	7
	Carbuncle.....	...	2	...	2	1	...	1	...	...	...	...
	Influenza	1	...	1	...	...	...	...	...	...	1	...
	Diarrhoea & } Choleraic }	133	139	148	140	140	126	117	134	159	114	182
	Disease ... }											
Totals of Zymotic Class...		461	571	751	858	513	411	528	537	613	419	583
2. Tubercular		382	326	374	423	419	426	469	565	555	514	501
3. Of Brain, Nerves, &c.		339	353	365	371	341	370	426	455	416	450	503
4. Of the Heart, &c. ...		124	119	132	152	127	139	146	176	170	204	212
5. Of Respiratory Organs		285	396	411	431	400	543	541	630	561	519	694
6. Digestive Organs.....		89	93	104	118	87	96	111	136	126	155	150
7. Urinary Organs		25	40	39	20	27	34	26	55	62	63	42
8. Of Organs of Gene- } ration		17	13	8	16	9	17	21	13	23	29	19
9. Of Joints, Bones, &c.		10	6	4	5	7	10	14	11	14	13	15
10. Of Skin		7	6	3	2	3	4	9	4	5	6	1
11. Premature Birth, } Low Vitality, Mal- } formation, &c. ... }		154	176	191	145	143	143	168	177	226	212	177
12. Uncertain Seat		64	62	154	69	118	126	77	105	97	101	106
13. Age		107	114	133	125	105	144	106	130	150	126	141
14. Violence		52	64	50	56	87	70	75	68	90	82	75
15. Not Specified		52	54	40	76	35	47	79	34	46	26	56
TOTALS		2168	2393	2659	2867	2421	2580	2796	3096	3154	2991	3275

Zymotic Diseases.—Class I.—This class was a larger one this year than last by 164 deaths, but it is less than 1876 by 30, and is only slightly in excess of the average of the eleven years 1868-78.

There is no reason, therefore, for dissatisfaction in regard to this most important class of disease. It will be found also that the increase of the past year in this class was due to epidemics of *Measles* and *Whooping Cough*, and to an increased prevalence of *Diarrhœa* and *Croup*. *Diarrhœa* and *Whooping Cough* were more fatal this year than in any of the series in both cases by 23 deaths; *Measles* and *Croup* are above the average. *Small Pox* was fatal in 19 cases, a decided decrease, we are glad to notice, from the fatality of the previous year. We find that, of the whole eleven years, it is below the average, but if we strike out the excessive fatality of 1871, it is slightly above the average of the remaining 10 years. We have still to express our regret, however, that so many cases should remain to a fatal termination among our population. We must regard—especially among the class to which 13 of the 19 fatal cases belonged—each death as a miscarriage of our sanitary efforts, and a failure of duty on the part of the public. Amongst the lower classes the ignorance of the commonest precautions and the obstinacy in yielding to the most reasonable measures is something appalling. They strive—and are assisted in the effort often by neighbours whose own lives are in danger—to conceal the existence of the disease from public observation, carrying on meanwhile the ordinary business of life as if no danger existed. When discovered, before the case is too advanced, many refuse obstinately to be removed to hospital, or if the case is recovering, or has proved fatal, to have any disinfection accomplished which puts them to the slightest inconvenience, or by which they will sustain the most trifling loss. These facts, which are not exaggerated, lead us to press for more summary power in dealing with infectious disease among the lower classes. This may be objected to as class-legislation, but in matters of such vital importance we cannot afford to be

punctilious in respect of class-privileges, or to overlook the fact that a law may be required for the illiterate which is not required for the educated. The case of two families occupying one house is the only one in which forcible removal to hospital can be effected, and then only after application to a magistrate or justice, during which process the time for safe removal is frittered away. Powers might be given to *enforce* effectual disinfection, and to prevent those who have nursed or come in contact with the infected person from exposing themselves without proper precaution. We would, again, strongly insist upon re-vaccination of all adults, who have only been vaccinated in childhood as a necessary and simple personal precaution. The extreme danger of children returning to School soon after suffering from infectious diseases, or attending it while such diseases are present in the house where they reside, is a matter which cannot be too strongly represented in these pages. Of the other zymotic diseases *Scarlatina* is decidedly under the average as also the fatality from *fevers*. Diphtheria is slightly above the average. Thus it may be seen that in most of the diseases over which sanitation has influence a decrease is noted, and therefore there is reason for rejoicing rather than dissatisfaction regarding the mortality statistics of the past year. The relative amount of zymotic disease in the various parishes of the district is shown in the table below.

SUB-DISTRICTS	No. of Deaths from Epidemics per 1000 of the Estimated population.	Ratio of Deaths from Epidemics to every 100 of the total deaths.
Battersea	4.02	17.8
Clapham	3.21	17.7
Wandsworth	1.55	9.0
Putney	2.24	13.8
Streatham	2.93	14.7

It will be seen that the Wandsworth Sub-district

holds the enviable position of having the lowest epidemic mortality. As regards special diseases, Small Pox, Fever, and Diarrhoea were most prevalent in Battersea—Measles and Scarlatina (relatively to the population) in Clapham—Croup in Putney—and Diphtheria in Wandsworth (See Table I. Appendix.)

Non-Zymotic Diseases.—The important class of epidemic diseases has been discussed at greater length than we can afford for other diseases less liable to fluctuation. The Classes numbered 3, 4 and 5, on the table on page 9 were more fatal in 1878 than in any other year of the series, especially diseases of the respiratory organs. A diminution in the fatality from Premature Birth and also from violence, &c., is a matter for congratulation, as in some measure an indication of improvement in the moral and social well-being of the community.

Mortality according to Age.—In almost all the local summaries it has been remarked that the increase of the past year was due to a greater fatality at the extremes of life. That will be found true of the whole district as a glance at the accompanying table will show. The number of deaths between 5 and 80 were 21 fewer

YEARS	AGE							
	Under 1 year	From 1 to 5 years	From 5 to 10 years	All under 20 years	From 20 to 40 years	From 40 to 60 years	From 60 to 80 years	80 years & upward
1868	667	369	75	1203	263	291	312	99
1869	692	489	57	1369	290	290	361	83
1870	713	540	157	1554	266	328	407	104
1871	753	538	142	1517	380	411	441	118
1872	705	452	61	1297	282	394	354	94
1873	636	387	75	1285	326	394	448	127
1874	777	452	107	1438	361	462	419	116
1875	886	467	132	1660	399	422	502	113
1876	910	524	99	1638	398	468	540	110
1877	840	466	109	1517	387	458	525	104
1878	983	600	100	1780	338	483	532	142

in 1878 than in 1877. An increase in the deaths among children was observed over the whole metropolis during the past year. In the metropolis it is 25·2 per cent. of the entire deaths. In the Wandsworth District it constitutes 30·0 per cent. This is greatly to be deplored, for undoubtedly the mortality among infants is attributable to a great extent to errors in management, feeding, &c., and to other causes to which we have referred at length in previous Reports.

The mortality over 80 was strikingly high in 1878. The deaths numbered 142 and constituted 4·2 per cent. of the total, in 1877 the number was 104 and the rate 3·5 per cent.

Social Position of the Deceased.—The proportions of the classes were as follow during the year 1877 and 1878:—

	1877.	1878.
Nobility and Gentry -	2·5 per cent.	1·62 per cent.
Professional Class -	6·2 „	5·08 „
Middle Class -	18·2 „	18·10 „
Industrial Class -	73·1 „	75·20 „
	<hr/> 100·0 <hr/>	<hr/> 100·0 <hr/>

It will be noticed that the mortality among the lower classes has increased, and that of the upper and professional diminished, the middle class remaining almost stationary. The increased epidemic mortality accounts for this change.

Sickness among the Union Poor.—Table V. in the Appendix gives all needful information on this subject. An increase in the number of cases occurred in all the Districts except Wandsworth and West Battersea, amounting in all to nearly 300 cases, and excepting in the

Wandsworth and *East* Battersea, an increase in the number of deaths. The total mortality has risen from 4·0 to 4·2 per cent. of the cases treated.

Inquests, Uncertified Deaths, &c.—In all 137 inquests were held during the year 1878. 74 in Battersea, 26 in Wandsworth, 15 in Streatham, 11 in Clapham, and 7 in Putney. They may be divided, according to the verdicts, into :—

I. Accidental	-	-	-	-	-	55
II. Natural	-	-	-	-	-	67
III. Suicidal	-	-	-	-	-	11
IV. Murder	-	-	-	-	-	1
V. Execution	-	-	-	-	-	1
VI. Unknown	-	-	-	-	-	2
						<hr/> 137 <hr/>

This constitutes nearly 4·2 per cent. of the total deaths. There were 140 last year, making a rate of 5 per cent. nearly. We are glad to note a reduction in those untoward events. Of the accidental deaths more than a third were due to overlaying.

The number of Uncertified Deaths still continues to rise; 38 occurred in Battersea, 9 in Clapham, and 1 in each of the other Districts. In all, 50 persons have died and were buried in one District, and nobody was able to say what they died of; no medical man was in attendance, and the Coroner thought it unnecessary to hold an inquiry over any one of them. The fact that 50 human beings can thus pass away without anything definite being known regarding their mode of exit from the world, is, to say the least, uncomfortable. The number of deaths thus unaccounted for increases year by year. Every death not certified should be made the subject of a proper inquiry.

Sanitation.—An epitome of the work done by the surveyors, &c., is given in Table VI. in the Appendix. An increase is to be noted in all the items of sanitary work, but more especially in house inspection. The true kindness of this system of sanitary supervision will by-and-bye be appreciated by the poor who complain much less than their betters, and whose sanitary requirements would never be discovered but for the zeal of the Inspector or Medical Officer. A matter of importance to the entire community is referred to especially in the Summary for Battersea. The sewers built many years ago, and made to do duty for twice as many houses as they were built for, failed to carry off the storm water from our streets, &c., of which we had many experiences during 1878, and filled the cellars, &c., of low lying houses with liquid of a most disagreeable nature. In several cases in the parish of Putney the owners of the houses were summoned to fill up the cellars or otherwise protect themselves from this overflow, but feeling injured enough by the water, they naturally declined to be at the expense of doing what they conceived to be the work of those to whom the sewer belonged. The magistrate agreed with them, and so it stands. This matter has been exhaustively treated of by the Surveyors of the Board in the special reports drawn up by them during the year and laid, together with a memorial, before the Home Secretary. The Medical Officers are strongly of opinion that such floodings are highly dangerous to the health of the occupants of the houses in which they occur.

Another subject of great public importance is fully discussed in the Putney Summary, page 85, the trapping of house drains. Nothing is more essential to the healthiness of our population than the separation of the house pipes and sewer from any gaseous connection with each other. A trap should be placed on every house drain outside the house, and opening on the *house-side* freely to the air, as well as, if possible, ventilated by a suitable pipe on the *sewer-side*. This is a matter of

private arrangement at present, but it should be made compulsory.

Cow and Slaughter-Houses and Piggeries.—These have been inspected in each of the sub-districts by the several medical officers and inspectors. As we had occasion to remark last year, all concur in commending the stringent regulations in force regarding slaughter-houses, and in lamenting the absence of similar regulations for the control of cow-houses. In last Report we made a strong representation on this subject, urging the need for such means as would enable us to meet those numerous cases of bad sanitary arrangements which we are constantly finding in the ordinary type of cow-house. During the year under review, the Vestry of Kensington took energetic and systematic action in this matter, and so perseveringly, that the Privy Council at last yielded, and put into force the 34th Section of the Contagious Diseases (Animals) Act, 1878. The section in question reads as follows :—

“DAIRIES, COW-SHEDS, AND MILK SHOPS.

“The Privy Council may, from time to time, make such general or special orders as they think fit, subject and according to the provisions of this Act, for the following purposes, or any of them :—For the registration with the local authority of all persons carrying on the trade of cow-keepers, dairymen, or purveyors of milk. For the inspection of cattle in dairies, and for prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cow sheds in the occupation of persons following the trade of cow-keepers or dairymen. For securing the cleanliness of milk-stores, milk-shops, and milk vessels used for containing milk for sale by such persons. For prescribing precautions to be taken for protecting milk against infection or contamination. For authorising a local authority to make regulations for the purposes aforesaid, or any of them, subject to such conditions, if any, as the Privy Council prescribe.”

In the spring of the present year (February, 1879) an order was made by the Privy Council appointing the Metropolitan Board of Works the local authority for making regulations for the carrying out of these purposes. This was promptly done, and the regulations are now before us. The difficulties in the way of applying anything like satisfactory regulations to premises already in occupation without pulling down and rebuilding the same, are in many cases unsurmountable, and we felt puzzled how such an order was to be put in force. We were hardly prepared, however, for the news recently published as follows :—

An order has been made by the Privy Council, dated the 9th July, that the Dairies, Cowsheds, and Milk Shops Order of 1879, and the amendment of the same date, are revoked; and stating that “it shall not be lawful for any person following the trade of cowkeeper or dairyman to begin to occupy as a dairy or cowshed any building not so occupied at the making of this order until he first makes provision, to the reasonable satisfaction of the local authority, for the lighting and the ventilation, including air space, and the cleansing, drainage, and water supply of the same while occupied as a dairy or cowshed.” It will also be necessary to give one month’s notice in writing to the local authority of the intention to occupy any such building.

This leaves the matter, as far as the present premises are concerned, *in statu quo*. However, some good has been done by the definition in the regulations referred to of the demands of sanitary science regarding the control of the milk traffic. In one particular—that of the proximity of other buildings—the order is faulty, and in some parts there is too much vagueness to be of much practical use. Still, on the whole it is satisfactory. The regulation, or better still, the abolition, in crowded localities, of piggeries, is a question of great importance; but the British legislature has always been distinguished for such an intense respect for even the phantom of a “vested right” that we may wait long enough for this

much needed reform. This matter is strongly urged in the local summary for Wandsworth.

The Water Supply.—This question is one we have long and fully discussed in these reports. With the exception of the Grand Junction, the Southwark Water Company continues to supply the worst water in the Metropolis. We have, in last year's report, defined the points requiring attention on the part of the water company—better filtration, subsiding reservoirs, and constant service; but we feel we are doing an injustice to any water company if we expect them to supply *pure* water from the Thames. According to Dr. Frankland (Registrar-General's Annual Summary) the Thames water was more impure from *organic* matter in 1878 than for ten years previously, and the proportion of organic impurity was greater than can be considered consistent with water fit for domestic purposes. The Registrar-General quotes the opinion of Mr. Bateman (of Loch Katrine fame) that pure water may be brought to London from Wales at an annual outlay of £470,000, covering interest of capital and an annual charge for working expenses of £150,000, while we are now spending £1,283,548 a-year “for waters polluted more or less by the sewage of innumerable towns.” If this be true, surely the days of the Thames Water Companies are numbered. The plan often advocated in these reports of obtaining water from the chalk stratum round London is also recommended by the Registrar-General. The question has been prominently brought before Parliament by Mr. Fawcett. We would be glad to be freed from the tyranny of the monopolists.

LOCAL SUMMARIES.

BATTERSEA.

In rendering a statement of the total statistics of the rapidly increasing population of the parish, during the year 1878, we have thought it desirable to present in this combined report, the details which concern the parish as a whole, reserving for our individual reports on our several districts, matters more distinctly local in their bearings.

The determination of the population of the parish is, of course, an essential preliminary to the statistics which it is our province to present, and the more distant the year from the last census, the more difficult does it become to ascertain positively the actual numbers. We, therefore, present our estimates tentatively; but do not think that the next census enumeration of the people will considerably alter our figures. The so-called *official mean population* of the Registrar-General on the middle day of the year 1878 was 79,068, which would give a birth-rate, on the 3,748 births registered during the year, of 47·4 per thousand. This we know to be in excess of the real rate, the birth-rate for London during 1878 being 36·2, and the ascertained birth-rate at the last two census enumerations of the parish being 42 per thousand. Assuming, as we have hitherto done, that this is our normal birth-rate, we find by calculation that the real population of the parish must be 89,238, in order to account for the number of births registered; this we term the *estimated mean population*, and upon it we base our calculations.

The total number of deaths registered in the parish during the year was 1,803, and deducting the non-parishioners who died in the Workhouse Infirmary, 106 in number, a death-rate for the year under report of 19 per thousand will result.

The official mean population of 79,068 would, if the non-parishioners who died in the Infirmary were included in the calculation, give a mortality of 22·7 per thousand, thus comparing favourably with the mortality of the Metropolis at large, which was 23·5 per thousand during the year 1878; the death-rate for the parish being considerably lower, even under the most unfavourable method of computation.

General Sanitary Work in the Parish during 1878.—The sanitary work of the Parish increases year by year in direct proportion to the additional number of inhabited houses and augmented population.

The Inspector of Nuisances made 3,322 sanitary inspections during the year 1878, the particulars of which are recorded in the official register. Notices to abate nuisances to the number of 658 were served, all of which were complied with except 52, where second notices were served. In 17 cases recourse was had to magisterial aid, with the result of 9 compulsory orders being obtained, all of which were executed.

Other details of the sanitary operations during the year will be found in the reports for our several districts.

The flooding of the houses in large areas of this Parish with sewage water, which some few years since occurred but about once a year, has latterly been so frequent, and attended by such discomfort to the inhabitants, as well as so injurious to the general health of those residing in the localities in question, that we feel the subject to be one of supreme importance from a sanitary stand-point.

That the magnitude of the evil may be made manifest, we append a list of the houses so flooded, derived chiefly from the reports of Mr. Pilditch, the able and energetic surveyor for Battersea.

The following is a list of the several houses that have suffered most severely from the inflow of sewage water upon their premises, viz.:—

No. 1. Ward.

"Victoria Hotel," Queen's Road; "Steam Packet" P. H., Nine Elms Lane; "Waterman's Arms," Ponton Road, Nine Elms Lane; "Railway Hotel," Nine Elms Lane; "Ponton Arms," Ponton Road; "Crown Inn," Currie Street; "Royal Rifleman," Battersea Park Road; "Shaftesbury Hotel," St. Andrew's Street; "Rock Tavern," Battersea Park Road; "Devonshire Arms," Savona Street; "Duke of Cornwall" P. H., Stewart's Lane; "The Albion," Stewart's Lane; "The Locomotive," New Road; "The Welsh Harp" P. H., New Road; "The Queen's Arms" P. H., New Road; "The Carpenters' Arms," Linford Street; Messrs Lloyd & Co.'s, Downey's Dock Road; No. 177, Battersea Park Road; Nos. 34, 30, 28, 26, 24, 22, 20, 18, 8, 6, 4, 2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49, 51, 55, 57, 63, 71, and 75, Kenneth Road, New Road; Nos. 7, 6, 5, 4, 3, 2, 1, Corunna Terrace; Nos. 5 and 6, Stewart's Terrace, Stewart's Lane; Nos. 1 & 2, Victoria Terrace, Queen's Road; Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, Church Terrace, Queen's Road.

No. 2 Ward.

Nos. 181, 183, 287, 289, 291, 373, 375, 377, 379, 389, 395, 399, 425, 431, 437, 441, 443, 361, 449, 451, 453, 455, 459, 463, 465, 467, 469, 475, and 501, Battersea Park Road; Nos. 116 to 142, and 162 and 164, Bridge Road; "The Royal Albert Arms," Orkney Street; Nos. 22, 23, 24, and 25, Chatham Street; Nos. 17, 19, 21, 23, 37, 39, 41, 43, and 45, Culvert Road; "The British Flag" B. H., and the "Haberdashers' Arms," Culvert Road; Nos. 58, 56, 54, 52, 50, 48, 46, 44, 42, 40, 38, 36, 34, 32, 30, and 28 Grayshott Road; No. 1, and the Co-operative Stores, Brassey Square, Shaftesbury Park Estate; Nos. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 31, 29, 27, 25, 11, 9, 7, 5, 3, and 1, Latchmere Road, "The Clockhouse and Latchmere" P.H., No. 33 Tyneham Grove.

No. 3 Ward.

"The Stag" P.H., and "The Farnborough Arms," Bridge Road West; Nos. 53, 51, 49, 47, 45, 43, 41, 39, 37, 35, 33, 31, 29,

and 27, Bridge Road West; Nos. 42, 44, 46, 48, and 50 Falcon Grove; Nos. 5, 6, 8, 10, 14, 16, and 1, Grove Road; Nos. 1, 2, 3, 4, 5, 6, 7, and 8, Falcon Terrace; Nos. 1, 2, 3, 6, 9, 5, 7, 8, and 4, Grove Terrace; Nos. 11, 12, 13, and 15, and 96 and 97, Ingrave Street; Nos. 1, 2, 3, 4, and 5 Junction Terrace; Nos. 1, 2, 3, 4, 5, 6, and 7, Auckland Place; Nos. 1, 3, 4, and 5, Falcon Place; Nos. 1, 2, 3, and 4, Falcon Cottages; Nos. 1, 2, 3, 4, 5, 6, and 7, South Crescent; Nos. 1, 3, 5, 18, 19, 34, 36, 37, 38, 40, 41, 42, 48, 50, and 207, Winstanley Road; Nos. 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, 21, 23, and 25, Barmore Street; "The Queen Victoria" P. H., and "Meyrick Arms," Falcon Lane; "The Black Swan" B. H., "Queen's Head" P. H., and "Duke of Westminster" B. H. York Road; No. 20, St. John's Terrace, York Road; Nos. 2, 4, 5, 6, 7, 8, and 9, Richmond Terrace, Ingrave Street; 1, Orchard Terrace; 1 and 2, Holly Villas; Pembroke Villa; 1 and 2, Rore Villas; Nos. 2 and 6, Hope Cottages; No. 21, Grant Road; Nos. 127, 129, 133, 134, 135, 137, 138, and 140, Meyrick Road, "The Shakespere" P. H., No. 3, Newcoman Road, "The Wellington" P. H., Nos. 1, 2, 3, 4, 5A, 7A, 29 and 30, Palk Road; "The Clarence" P. H.; "The Lord Ranelagh" P. H., Verona Street; Nos. 4, 5, and 6, Somerton Terrace, Hyde Lane; Nos. 1, 2, 3, 4, 5, 6, 14, 22, 23, 24, and 26, Harley Street; Nos. 2, 4, and 11, Napier Terrace; Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22, Clarence Terrace, Surrey Lane (Cellars only).

The depth of water in these several premises varied from a few inches to three feet and more in depth, and upon the subsidence of the water a layer of abominably stinking mud was deposited on the floor of the basements. The majority of the houses in this list were flooded repeatedly; a larger number were more slightly invaded by sewage on one or two occasions only; enough however is here adduced to show the widely-spread and general character of the sewer-overflow, nearly the whole of these premises being at the lowest points some feet above the crown of the main sewers.

The foregoing list clearly shows the great area of the parish affected by the overflow, and when it is remembered that these returns only refer to those cases in which

the sewage matter rose above the boards in the basements (a very large number having the soil under the joists infiltrated) with an equally prejudicial effect to the health of the inhabitants, the evil is seen to be so extensive in its character, that, if it can be shown to be dangerous to health, not only by producing those diseases which are believed to proceed from sewage matter in certain states, such as Typhoid Fever or Diphtheria, but to produce a lowered vital condition favourable to the development of certain constitutional diatheses, such as the tubercular, no efforts should be spared on the part of the sanitary authorities or their responsible officers to prevent that which is at the present moment a danger of the greatest magnitude.

The deposits of solid matter which are left behind after floodings with sewage, and which are composed of certain proportions of solid sewage—*e.g.*, fœcal and other organic matters, with ordinary mud, sand, &c.—gives rise to the evolution, after a certain period, of the so-called sewer gases ; which are of organic origin, and concerning the prolonged effects of which on the system we invite attention to the following extracts :—

“That the breathing such an atmosphere has an immense effect on health is a matter of such daily observation, that I presume it will not be denied. Every one must have seen instances in which headache, sickness, diarrhœa, general malaise, and, after a certain time, great depression of health, with more or less anemia, was produced.”

“To sum up : the diseases produced by fœcal emanations on the general population seem to be, diarrhœa, bilious disorders, often with febrile symptoms, dyspepsia, general malaise, and anemia ; all these affections of digestion or sanguinification. Typhoid Fever is also intimately connected with sewage emanations, either being their

direct result, or more probably being caused by specific products mixed with the sewage.”—*Parkes, Art., “Effects of Impure Air.”*

With reference to this portion of the subject, we beg to direct attention to the subjoined Reports made by us to the Board:—

EXTRACTS FROM REPORTS OF MEDICAL OFFICERS OF HEALTH FOR BATTERSEA.

“In reply to yours of the 31st ultimo, asking me for information as to amount of sickness prevalent in houses in my District and elsewhere in the Parish of Battersea, which had been flooded with sewage in January and February last, I have to inform you that in the majority of the houses so flooded nearly the whole of the persons living therein were more or less injuriously affected by diseases likely to result from such flooding with sewage matter. The diseases observed by me were Typhoid or Enteric Fever, Diphtheria, Mumps, and Gastro-Enteritis, of which I had many examples approaching Typhoid in intensity if not in duration. In addition, Rheumatism and Bronchitis were very prevalent.

“Not only the houses in which the sewage appeared above the boards of the basement rooms were rendered damp and unhealthy, but a far larger number, in which the soil under the joists was impregnated with sewage matter, a layer of which latter was frequently deposited on the surface by the receding waters; and in houses in both these categories I found, as a rule, that the whole of the inhabitants suffered more or less from one of the diseases above mentioned, whereas in houses so situated as not to be influenced by the sewer overflow, although the severe weather may have caused many cases of illness, the majority of the inhabitants were in good health.

“I have also observed that in the districts flooded several cases of Phthisis in the earlier stages, and which

had been dormant for some time, rapidly progressed to a fatal issue after the basements of the houses in which they lived had been flooded."

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"Mr. Richards, the Inspector, has made a house-to-house call, to ascertain what amount of sickness, and its nature, has occurred in the houses flooded in the following streets, viz. :—Ingrave Street, Meyrick Road, Grove Road, Winstanley Road, Palk Road, Falcon Grove, and Falcon Lane, with the following results :—

No. of Houses visited	No. of Houses from which Tenants have removed since flooding took place	No. in which sickness has occurred	No. in which no sickness has occurred
47	11	19	17

"It will be seen from the above that nearly an equal number of families have had sickness in their houses or otherwise. The nature of illness found to have existed is as follows :—Rheumatic Fever, Lung Diseases, Severe Colds, and Sore Throats.

"These complaints would all be caused by damp basements, and persons residing in houses being subject to periodical floodings would certainly deteriorate in health, and so be more liable to be affected by disease; and when one finds all the members of families affected, it would appear there is but one prevailing cause, and I do not think there can be any doubt but that we must look to the floodings for that cause."

"April, 1879."

We think there can be no doubt that the present liability of the lower parts of the parish to this dangerous condition of things is one that should no longer be per-

mitted, and that upon those who devised the present system of sewerage, and who permit the admission of the drainage of such large areas of elevated land as must infallibly overcharge the sewers, without providing for their relief by adequate pumping power; such as may, for instance, be seen at the magnificent pumping station at the north side of Chelsea Bridge; a heavy responsibility rests, not only for a direct loss of life, but for the vastly greater numbers in whom a lowered condition of vitality is induced, with an abnormal tendency to certain diseases, such as Rheumatism, Bronchitis, and Consumption, all of which we have observed to be much more frequent in houses which have damp basements from the sewer-overflow than in the districts which have not been thus affected.

W. H. KEMPSTER,

JOSEPH OAKMAN,

*Medical Officers of Health for East and
West Battersea.*

BATTERSEA EAST.

During the year 1878 the Registrar recorded the births of 2,185 children, of whom 1,120 were males and 1,065 were females. It is usually assumed for the purposes of calculating the birth and death-rates that the number of births occurring in each thousand of the population is from year to year the same, and the correctness of this method has been verified by the results obtained in the years 1861 and 1871 when the birth-rate was found to be equal to 42 per thousand inhabitants residing in the sub-district. The near approach of the next census-period, 1881, renders it a somewhat delicate task to attempt to assume the *real* population of the sub-district; but it can only be said that if the above-mentioned method of arriving at an *estimated mean population* be as correct at the present time as it has been in the past, Eastern Battersea must on the middle day of the year under report have contained within its boundaries 52,200 persons. The births 2,185 were in excess over the deaths, 895, which gives what is termed a *natural increase of population* of 1,290.

STATISTICS OF MORTALITY.

BATTERSEA EAST.		SEX.		AGE.									SOCIAL POSITION.			
		Males.	Females	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	All under 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Population, June, 1877— 38,308.		Total Deaths from each Class of Disease, &c., in the Sub-District.														
Official mean population, 1878—40,049.																
Area in Acres 1235.																
Classes:—																
1. Zymotic	Small Pox.	5	4	1	2	...	2	...	4	1	...	...	...	...	1	4
	Measles ...	6	4	2	1	5	...	...	6	...	...	...	...	...	...	6
	Scarlatina...	19	9	10	1	12	5	...	18	...	1	...	...	...	1	18
	Diphtheria.	4	1	3	...	4	...	...	4	...	...	...	...	...	...	4
	Quinsy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	12	7	5	3	7	2	...	12	...	...	...	...	...	2	10
	Whooping Cough ...	63	27	36	27	34	2	...	63	...	...	...	...	2	3	58
	Typhus, &c.	12	6	6	...	...	5	2	7	3	1	1	...	1	1	10
	Erysipelas.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Metria, Childbirth	2	...	2	...	...	...	...	2	...	...	...	...	...	...	2
	Carbuncle.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhœa & Cholera ...	71	83	38	39	25	...	...	64	2	2	3	...	2	7	62
Totals of Zymotic Class		194	91	103	73	87	16	2	178	8	4	4	...	5	15	174
2. Tubercular		116	83	83	78	23	5	7	113	23	27	3	...	1	6	144
3. Of Brain, Nerves, &c.		110	60	50	43	33	3	2	81	4	8	15	2	3	7	85
4. Of the Heart, &c. ...		52	26	26	21	...	3	6	30	5	7	10	...	3	3	46
5. Of Respiratory Or- gans		217	107	110	86	63	4	4	157	6	28	24	2	1	7	189
6. Of Digestive Organs		33	13	20	3	1	1	3	8	4	17	4	...	...	5	28
7. Of Urinary Organs.		9	3	6	...	...	...	...	3	3	3	...	...	...	1	8
8. Of Organs of Gene- ration		3	...	3	...	...	...	...	3	...	...	...	...	...	1	2
9. Of Joints, Bones, &c.		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Of Skin		1	1	...	1	...	...	...	1	...	...	...	...	...	...	1
11. Premature Birth, Low Vitality, Mal- formation, &c.		45	16	29	45	...	...	...	45	...	...	...	...	1	3	41
12. Of Uncertain Seat...		18	7	11	6	...	...	...	6	2	6	4	...	2	...	16
13. Age		9	3	6	...	...	...	...	...	...	5	4	...	...	...	9
14. Violence		25	16	9	5	2	2	4	13	5	4	3	1	...	2	23
15. Not Specified		13	7	6	3	1	...	...	4	1	5	2	...	...	1	12
TOTALS		895	433	462	364	211	33	28	636	64	109	77	15	7	29	778

Mortality.—The deaths registered during 52 weeks in the year 1878 were, of males 433, and of females 462; the total number being 895. The numbers for the two preceding years were, for 1877, 905, and for 1876, 893; which when the increased population elsewhere shewn is taken into account, affords evidences of the excellent sanitation of the sub-district.

The estimated mean population being 50,200, the death-rate for the year 1878 would be at the extremely low average of 17·8 per thousand. The Registrar-General's method of calculating the increase of population, although perfectly correct when applied to *the whole country*, is insufficient when applied to such rapidly-increasing communities as the one under consideration; and would give an official mean population for East Battersea of 40,049, with a consequent death-rate of 22·3 per thousand per annum.

Ages at death.—The number of deaths under one year of age was 364, or 40 per cent. of the total number. Between one and five years 211 deaths occurred, or 23 per cent. of the whole. The number of deaths under five years would therefore be 575, and be 63 per cent. of the 895 deaths registered.

Above 80 years of age 9 persons died. Of these 6 were females of the respective ages of 82, 84, 89, 90, 93 and 93; and 3 were males aged 81, 85 and 85 at time of death. It would appear that superior longevity is one of the numerous privileges of the former sex.

Zymotic or Epidemic Diseases.—The year 1878 will contrast favourably with any recent year in the diminished fatality of diseases of this class. In the year 1876 and 1877 206 deaths occurred, and in 1878 zymotic disease caused but 194 deaths. A glance at the subjoined table will show in what particulars the three years differ from each other in the respective mortality from the various diseases.

	1878	1877	1876
Diarrhœa - - -	71	47	60
Whooping Cough - -	63	26	53
Scarlatina - - -	19	18	34
Fevers (the various) - -	12	17	6
Croup - - - -	12	10	11
Measles - - - -	6	47	20
Small Pox - - - -	5	28	7
Diphtheria - - - -	4	1	3
Metria - - - -	2	8	10
Erysipelas - - - -	0	4	2
	<hr/> 194	<hr/> 206	<hr/> 206
Zymotic death-rate per } 1,000 per annum }	3.7	4.3	4.3

It is satisfactory to observe that the diminution in the mortality is principally in those diseases over which sanitary measures can be the most effectively exercised, with the exception of diarrhœa, the mortality from which, 71, was the highest yet observed in the sub-district. As is usual, nearly the whole of the victims were very young children, 39 being under 1 year and 25 between 1 and 5 years, nearly the whole of the latter being just over 1 year old. There is but little doubt that food of an improper character must in many of these 64 cases have had great influence in determining the fatal result; but there is this peculiarity universally observed with reference to diarrhœa, that its prevalence and fatality are directly augmented by two conditions, a high temperature and an absence of rain-fall.

When to this is added the fact that the disease is most fatal in the urban rather than the rural districts, and in the best sewered towns shows excessive rather than diminished fatality, more than a reasonable suspicion may exist that the sewer gases act as media for the predisposing element in the disease. The remedy of course is efficient ventilation of the sewers and drains, but not into and by the medium of house as is now but too frequently

the case, and the severance of all connection between the cistern and the sewer by the overflow pipe ; in fact the precautions to be adopted so precisely resemble those recommended for the prevention of Typhoid Fever, that a more than casual relation between the two diseases may be predicated.

The mortality from Whooping Cough was in the past three years 1878, 71 ; 1877, 47 ; and 1876, 60. The cause of these variations is not known, and the disease is one over which sanitary measures have but the slightest influence.

From Scarlatina the mortality varied but little from the previous year. Whenever a death is registered from this disease, or wherever a case is known to have occurred, disinfection is rigidly carried out by sulphurous acid, the whole of the clothes and furniture of the room occupied by the patient being treated. Although vigilantly looked for, no case has occurred of a fresh outbreak of the disease where this plan has been adopted in the sub-district.

The mortality from Measles has diminished to 6 from 47 and 20 in the two preceding years.

From Small Pox a much smaller mortality has to be recorded, viz., 5 cases in contradistinction to 28 in 1877. The lessons taught during the last epidemic as to the efficacy of vaccination in conferring invulnerability to this disease, more especially if tested by re-vaccination after puberty, would carry conviction to any ordinarily constituted mind. The mental constitution which is unable to discern, and can refuse to acknowledge the benefits conferred upon mankind by vaccination, being at the same time acutely sensitive to the various fables beloved of the anti-vaccinators ; is so obtuse in the one instance, and so hypersensitive in the other, that ordinary logical reasoning cannot follow out the mental processes involved.

The other Zymotic Diseases call for no special remark, except that deaths from the diseases of childbirth declined to 2 against 8 and 10 in the two previous years.

Other Diseases.—The tubercular diseases, Phthisis or Consumption, Water on the Brain, and Tabes or Consumption of the bowels, as it is frequently termed, caused 166 deaths. This is below the average number for two last years, when the deaths were from this cause 193 and 205 respectively.

Diseases of the Respiratory Organs, as Bronchitis, &c., were, as might be anticipated from the early and severe winter, numerous; 217 deaths were ascribed to this cause. Diseases of the Brain and Nerves continue to increase in number at an accelerated rate, 110 being registered in 1878, 82 in 1877, and 67 in 1876. Diseases of the Digestive System, which would include mortality arising from excess in food or drink, remain stationary to a remarkable degree; in 1878 there were 33 deaths, in 1877, 32; and in 1876, 35 were recorded by the Registrar.

From premature birth 45 deaths arose; from violence 25; on each of which latter cases enquiry arose before the Coroner, particulars of which are given under the heading of Inquests: and of Uncertain Seat, such as Cancer and Dropsy, 18; and not specified, as "unknown," 13 deaths were registered.

Social Position.—The relative positions in life of the persons deceased during the year will be found below:—

			= per cent.
Nobility and Gentry	-	-	7
Professional Class	-	-	29
Middle and Trading Class	-	-	81
Industrial and Labouring Class	-	-	778
Total number of deaths, 1878			895
			100·00

Vaccination.—The public Vaccination Registrar for the year 1878 records the vaccination of the year as follows:—

Successful Primary Vaccinations	-	-	1234
„ Re-Vaccinations	-	-	16
			1250

The respective numbers for the year 1877 were 1,462 and 464, together 1,926; but the epidemic of Small Pox then existing had the usual effect of attracting general attention to the advantages of, and necessity for vaccination. When the danger is at an end, so, but too frequently, are all precautionary measures.

Inquests.—Forty Inquests were held by the Coroner during the year, and the following table will show the results arrived at by the respective juries:—

Natural causes	-	-	-	-	-	17
Accidental causes—						
Asphyxia	-	-	-	-	-	5
Killed on Railway	-	-	-	-	-	4
Concussion, &c., of Brain	-	-	-	-	-	3
Burns, Scalds	-	-	-	-	-	2
Drowned	-	-	-	-	-	2—16
Homicidal—						
Suicide—Poison	-	-	-	-	-	4
Drowning	-	-	-	-	-	2
Stabs (Wilful Murder)	-	-	-	-	-	1— 7
Total	-	-	-	-	-	40

The latter crime was expiated by the trial, conviction and execution of the murderer, who stabbed his paramour repeatedly in a paroxysm of jealousy.

Uncertified Deaths.—In 18 instances the cause of death was not certified by a medical practitioner nor an inquest held by the Coroner. This is eminently unsatisfactory, and in any future legislation it is to be hoped that provision will be made to remedy this defect in our otherwise perfect system of registration. Nine of these cases were under 1 year of age, and the others were aged—2, 4, 5, 7, 32, 55, 72, 77, and 89 years at the time

of death. The assumed causes of death not being based on reliable data, are not here given, but were stated to be from natural causes.

Disease and Mortality amongst the Union Poor.—The number of persons treated during the past year has increased, 20 cases of Small Pox were attended, 18 cases of Fever, 4 of Scarlatina and 3 of Erysipelas. Of the total number of 905 cases attended, 20 died, which is rather more than 5 per cent. of the cases treated. It will be observed that the deaths were caused chiefly by diseases of the tubercular class, hence the relatively high mortality.

The details of the Sanitary Works carried out during the year are given in the combined summary; and I have, in conclusion, to express my best thanks to the Battersea Local Committee and the Board generally for the support accorded to me in carrying out the duties of the office I have the honour to hold.

W. H. KEMPSTER,

*Medical Officer of Health
for Eastern Battersea.*

BATTERSEA WEST.

In presenting the annual report of this sub-district for the past year, I have to observe that the deaths are in excess of the previous one by 88, caused by, in the epidemic class, Whooping Cough, Measles and Diarrhœa, and in the non-epidemic classes—diseases of the respiratory organs—the result of the long-continued cold weather, followed by so much wet—these latter diseases were especially fatal in the very young and persons of extreme age. Though the deaths are in excess of 1877, a year when they were less than in 1876—if we look at the nature of the population and their means of livelihood,—we may congratulate ourselves on the favourable death-rate of 18 per 1,000—calculated on the assumed population of the Registrar-General, which, in this district, judging from the birth-rate, is much too low.

Cases of Small Pox have occurred throughout the year, though not to any great extent, and have almost entirely been in persons above the age of puberty. I have never known a case in a child which had been properly vaccinated in infancy. No difficulty has been experienced in obtaining admission to the special hospitals.

Many of the houses in this district have been flooded

by water from the sewers, which has not only caused great of discomfort, but a large amount of sickness. This subject will be found fully referred to in the combined report.

On carefully looking over the mortality table, one cannot but notice the large number of children who die at an early age. Under 1 year it will be seen that no less than 244 died; whilst from 1 to 5, 181. Thus under 5 years of age 425 children died, or nearly half the the total number of deaths. These are glaring facts, and is undoubtedly a mortality much in excess of what it should be; but how to deal with the matter is very difficult. It is true young children are very prone to disease, and require careful watching and nursing on the part of their parents. Do they get the care which is necessary? It is no uncommon occurrence to be called to see infants dying, and you are told the child was only noticed being ill last night. The fact is, the mothers go out to work, and the child put out to nurse, or left with its sisters or brothers, and the ailment is not noticed till too late. Another, and perhaps one of the most important points in reference to infant life, is the practice of feeding. Persons should know that the various preparations sold as food for infants contain a large amount of starch, which is absolutely indigestible for infants, and it is slowly starved, the infant falls away, the mother, thinking it has not sufficient food, gives it more, really adding to the mischief, and at last the little thing from some wasting disease passes away. The matter is one which calls for a full and complete inquiry, and especially the subject in connection with the insurance of infant life.

Complaints of nuisance arising from pig-keeping have been unusually few for the past two years, the strict supervision kept over them by the inspector, and the magistrate in all instances ordering any nuisance to b

abated, or in default their removal, has, no doubt, caused the proprietors to realise their position and the necessity of cleanliness; but, until the matter shall be taken up by the Metropolitan Board of Works, and every pig-keeper made subject to Special Order in Council, which shall contain provisions for the proper carrying on of his business, and compel his compliance with such provisions before obtaining a license, we cannot in a district like this be free from complaints; it is an urgent matter, and requires immediate attention.

The cow-houses, dairies, and milk-shops, are now subject to Special Orders under 41 and 42 Vict. ch. 74. The regulations were made in February, are most exhaustive and necessary, and must prove a source of comfort to the persons living near them; whilst those relating to the contact of persons suffering from infectious disease with the cattle, or vessels used for containing milk, &c., will tend to put a stop to one active source of contagion.

Mortality.—The total number of deaths registered as having taken place in this district during the year was 908—455 being males and 453 females, the former exceeding the latter by 2, exactly the reverse of the previous year, when the females were 2 in excess. It is surprising how near the numbers are in reference to sex. In 1877 820 deaths were returned, therefore there is an increase on that year of 88. Of the total number 908, 190 took place in the Infirmary, 84 of which belonged to the parish of Battersea, leaving 106 to be divided amongst the other parishes forming the Union. These 190 deaths are 4 in excess of the previous year, when 186 were returned.

Deducting, then, the 190 Infirmary deaths which, as the inmates are derived from the whole Union, it is but fair to do, it will leave 718 as the correct number

for this out-door* district. The 84 above referred to as belonging to Battersea, will be taken into calculation in the death-rate for the entire parish.

Death-rate.—Calculating the death-rate in the same manner as in previous years, after deducting all Infirmary deaths and making due allowance for its population, the rate is 18·5 per 1,000. This is an increase of 1·4 per 1,000 on the year 1877.

Birth-rate.—The number of births returned were 1,594—803 being males, and 791 females, and the rate, calculated in the same manner as the deaths, was 40 per 1,000.

After including all deaths in the Infirmary, the above number of births gives a natural increase to the population of 656.

As in previous years, the birth-rate is much higher than that of known populations, and clearly points to the fact that our estimated population is lower than that actually existing.

Of the total births, 73 took place in the Infirmary, being 27 in excess of those of the previous year.

The following Table shows the causes of all deaths, classified at different ages, sex, and social position, which have taken place in this Sub-district during the year 1878 :—

* Out-door with reference to Infirmary.

STATISTICS OF MORTALITY.

BATTERSEA WEST.		Total Deaths from each Class of Disease &c., in the Sub-District	SEX		AGE								SOCIAL POSITION				
			Males	Females	Under 1 year	From 1 to 5 years	From 5 to 10 years	From 10 to 20 years	All under 20 years	At 20, and under 40 years	At 40, and under 60 years	At 60, and under 80 years	80 years and upwards	Nobility and Gentry	Professional Class, Mer- chants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
Population June, 1876 — 37,298.																	
Official mean population June, 1878— (52 weeks) 39,019.																	
Area 1108 acres.																	
Classes :—																	
1. Zymotic	Small Pox	9	3	6	2	...	2	2	6	3	...	...	...	...	...	1	8
	Measles.....	33	19	14	9	21	2	1	33	...	...	...	...	...	...	1	32
	Scarlatina ..	4	3	1	...	3	...	1	4	...	...	...	...	...	...	1	3
	Diphtheria	4	3	1	...	1	..	2	3	...	...	1	...	...	...	2	2
	Quinsy	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	10	3	7	1	8	1	...	10	...	...	...	...	...	1	1	8
	Whooping Cough ...	36	15	21	19	16	1	...	36	...	...	...	...	...	1	5	30
	Typhus & other Fevers	15	8	7	2	3	1	1	7	6	1	1	...	...	...	1	14
	Erysipelas...	4	3	1	1	...	...	1	2	...	1	1	...	...	..	...	4
	Metria, Childbirth	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Carbuncle...	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea & Choleraic Disease }	41	21	20	26	9	...	...	35	...	...	3	3	1	...	9	31	
Totals of Zymotic Class		157	78	79	60	61	7	8	136	10	2	6	3	1	2	21	133
2. Tubercular		143	71	72	41	25	4	7	77	33	31	2	...	3	2	19	119
3. Of Brain, Nerves, &c.....		137	75	62	31	26	2	2	61	7	19	46	4	1	...	16	120
4. Of the Heart, &c.....		53	23	30	3	1	...	3	7	7	18	18	3	3	...	10	40
5. Of Respiratory Or- gans.....		204	106	98	50	63	4	...	117	17	20	44	6	3	1	22	178
6. Digestive Organs.....		27	9	18	5	...	1	...	6	6	8	7	...	...	...	6	21
7. Urinary Organs		10	7	3	...	...	...	...	3	5	2	...	...	...	2	...	8
8. Of Organs of Gene- ration		3	0	3	...	...	...	...	3	...	...	...	...	...	...	...	3
9. Of Cancer, &c.....		23	8	15	...	...	...	...	2	9	11	1	2	...	...	6	15
10. Syphilis		11	9	2	10	1	...	...	11	...	...	...	...	...	...	1	10
11. Premature Birth, Low Vitality, Mal- formation, &c.....		31	18	13	31	...	...	...	31	...	...	...	...	...	1	3	27
12. Of Uncertain Seat ...		27	10	17	4	...	...	1	5	3	9	9	1	...	...	5	22
13. Age		58	28	30	...	...	...	...	...	...	21	37	2	1	4	51	
14. Violence		22	12	10	9	4	1	...	14	1	6	1	...	...	...	...	22
15. Joints and Bones ...		2	1	1	...	...	...	1	1	...	...	1	...	...	...	1	1
TOTAL		908	455	453	244	181	19	22	466	92	127	168	55	15	9	114	770

* This table includes all deaths in the Infirmary of the Union.

Zymotic Mortality.—The deaths from this class of disease collectively are 50 in excess of those of the previous year, though 9 below those of the year 1876. On looking at the various diseases there is an increase in measles, croup, whooping-cough, and diarrhœa, and a decrease in small pox, scarlet fever, and fevers generally.

The total number of deaths are 157—78 being males, and 79 females; 121 were under 5 years of age, 136 inclusive were under 20, and 21 from 20 to 80 years and upwards.

The number of fatal cases under 5 years is very large, but then we must not lose sight of the fact that the most prevalent diseases are those which particularly affect childhood.

Of the 8 fatal small pox cases but one was stated as to vaccination, being an adult not vaccinated. All the cases, with one exception, were above the age of puberty, when revaccination is necessary.

It must not be supposed that the above were all the fatal cases properly belonging to this district, for 24 were removed to the special hospital, some of which terminated fatally.

The deaths from Fevers were registered as follow :—
Typhoid, 9; Gastric, 2; Continued, 2; Remittent, 1; Rheumatic, 1.

The death-rate from this class of disease was 4 per 1,000.

The following Table contrasts all deaths from Zymotic causes during the past seven years :—

	1872	1873	1874	1875	1876	1877	1878
Small Pox	4	1	0	0	3	13	9
Measles	24	11	8	17	35	8	34
Scarlatina	3	3	5	48	20	8	4
Diphtheria	15	3	5	7	5	2	3
Quinsy	0	0	0	0	0	0	0
Croup	7	6	16	5	6	5	10
Whooping Cough	31	24	30	20	39	18	36
Typhus, &c.	13	22	15	14	19	25	15
Erysipelas	5	4	4	9	0	3	4
Metria, Childbirth	2	4	11	6	5	3	1
Carbuncle	1	0	0	0	0	0	0
Influenza	0	0	0	0	0	0	0
Diarrhœa & Cholera	32	37	43	35	43	22	41
Totals	137	115	137	155	168	107	157

Other Causes of Death.—Diseases of the Respiratory Organs, excluding Phthisis, gave 204 deaths, being 80 in excess of the previous year; 117 were returned as Bronchitis, 56 from Pneumonia, and 31 from other Lung diseases.

The Tubercular class of disease resulted in 143 deaths—from Phthisis, which is the chief, 79; Atrophy, 49; Scrofula, 12; and Hydrocephalus, 3. Collectively these are 29 below those of the previous year. This decrease is entirely in Consumption; the most fatal period of life in this disease is from 20 to 40. The deaths from Wasting, or Atrophy, are 3 in excess of the previous return, and all took place under 5 years of age, the majority under 1.

Diseases of the Brain and Nerves were 137, 75 being males and 62 females, 57 being under 5, and 65 between 40 and 80 years. The other diseases and numbers were as follow:—Heart, 53; Digestive Organs, 27; Urinary, 10; Generation, 3; Cancer, 23; Syphilis, 11; Premature Birth, Low Vitality, Malformation, 31; Violence, 20; Joints, 1; Uncertain Seat, 29; and Old Age, 58.

Of the 751 deaths from the non-Epidemic classes of disease, 377 were males, and 374 females; 192 were under 1 year; 112 between 1 and 5; 330 under 20, inclusive; 20 to 40, 82; 40 to 60, 125; 60 to 80, 162; 80 and upwards, 52 — 3 being 90; 2, 91; and 1 a female a centenarian of 101.

The following Table contrasts all deaths from non-Zymotic causes during the past seven years:—

	1872	1873	1874	1875	1876	1877	1878
Tubercular, including							
Phthisis	106	106	113	148	149	172	143
Of Brain, Nerves, &c...	76	100	115	130	119	148	137
Of the Heart, &c.	24	34	31	37	49	55	53
Of the Respiratory Organs, excluding							
Phthisis.....	105	156	151	197	160	124	204
Of Digestive Organs ..	18	11	23	27	19	37	27
Of Urinary Organs	4	4	6	10	13	14	10
Of Organs of Generation	2	6	3	7	8	8	3
Of Joints, Bones, &c. ...	0	0	4	8	4	1	2
Of Cancer.....	15	14	10	2	23	22	23
Premature Birth, Low Vitality, Malformation, &c.	22	23	26	37	30	30	31
Of Uncertain Seat	61	50	27	39	37	25	29
Age	46	51	22	39	53	47	58
Violence	28	4	15	15	18	23	20
Syphilis	0	0	6	9	4	7	11
Totals	507	559	552	702	684	714	751

Total Deaths from all causes, including all deaths in the Infirmary, in the respective years were—

1872	1873	1874	1875	1876	1877	1878
644	674	686	857	852	820	908

The Death-rates per 1000, excluding Infirmary deaths and its population, were—

1872	1873	1874	1875	1876	1877	1878
<hr/> 17.0	<hr/> 17.6	<hr/> 17.2	<hr/> 20.2	<hr/> 19.5	<hr/> 17.1	<hr/> 18.5

The deaths in the Infirmary were 190.

Inquests.—During the year 38 Inquests were held on the bodies of 20 males and 16 females, being a decrease on the previous year of 7. The verdicts were as follow :—

From Natural Causes	-	-	-	19
„ Accidental „	-	-	-	17
Suicide	-	-	-	2

Of the accidental causes, 9 were caused by Asphyxia of infants in bed; 1 from burning; 1 from drinking from the spout of a tea-kettle; 1 drowning; and 1 on a railway.

The suicides were those of a male and female, the former placed himself on railway metals and was run over, whilst the latter was a cut-throat; both cases were of unsound mind.

In analysing the above we find that 1 in every 4 inquests held was on infants suffocated whilst in bed; this is a considerable increase on last year, when 1 in 7 were so held. This is serious, especially when we know that every case could be prevented if mothers would be more careful of their infants when retiring for the night, and not fall asleep with the child at the breast, or placed under the clothes to keep it warm, where there is an absence of renewing air, and what there is is rendered totally unfit for breathing purposes by the emanations from the body; the little infant, from want of power, is unable to make its wants known, or probably whilst asleep is gradually asphyxiated.

Social Position.—The per-centage of deaths in relation to social position was as follows :—

Nobility and Gentry	...	...	...	...	...	1.76
Professional	...	...	...	...	...	0.99
Middle and Trading	...	...	...	...	...	12.56
Labouring	...	...	...	...	...	84.69
						<hr/> 100.00 <hr/>

Disease and Mortality amongst the Union Poor.—The number of cases which came under treatment were 272—117 being males and 155 females—10 were sent to Asylums as insane—and 25 were removed to special hospitals, the great majority being persons suffering from Small Pox. On reference to Table V. Appendix will be found the nature of the various diseases. It will be seen there is a decrease in the number of Small Pox cases compared with the previous year, also Diarrhoea and Fevers. From Lung Diseases there were 51 cases, Violence 9, and other Diseases 145, consisting chiefly of Rheumatism, Catarrh, Debility, &c.

Of the 272 cases there were 11 deaths which gives a death-rate of 4 per cent. At the same time it must not be forgotten that some of those who were removed to hospitals died.

It is a matter for congratulation that so few orders for Parish Medical Attendance are applied for in a large district as this is, now numbering nearly 40,000 persons, and speaks well for the condition of the poorer classes. Many also have become provident and secured for themselves medical aid in time of need by becoming members of the Provident Dispensary, nearly 4,000 availed themselves of the benefits of this Institution during the past year.

Uncertified Deaths.—The deaths of 20 persons were registered without any medical certificate, this is a

considerable decrease as compared with former years—still it is a very unsatisfactory state of the law, which permits the burying of 20 persons without any legal enquiry into the cause of their deaths—and must sooner or later claim the attention of the legislature.

Mortuary, St. Mary's Churchyard—During the year the Police have taken to the Mortuary 22 bodies—14 males and 8 females; these do not represent the whole number which the Mortuary has received, but, no record being kept, further information is not obtainable.

Vaccination and Re-Vaccination.—The number of Vaccine operations performed at the Public Station were—

Primary Vaccinations	760
Re-vaccinations	33
	—
Total	793
	—

Abstract of Sanitary Works carried out in West Battersea during the year ending December 31st, 1878.

The following is extracted from the report book of Mr. Richards, the Inspector of Nuisances, being some of the results of inspections made in conjunction with Mr. Pilditch and myself:—

On the 5th March information was received that a carcase of a pig (which had died of fever) had been brought to Battersea, and in all probability intended for human food. The same night, after some considerable difficulty, the whole of the pig was found on the premises of Mr. Benison, butcher, York Road; the principal part put in salt and one joint hung in the shop. It was all seized, condemned, and destroyed by order of the

Magistrate. A summons was subsequently taken out, and Mr. Benison fined £20. The Magistrate remarking that he had never heard a worse case.

The pigs have not been allowed to rest, official inspections having taken place. Amongst them were Messrs. Middleton, Biddlecombe and others, piggeries in Chatham Road, where a Magistrate's order was obtained and the pigs either removed or the sties paved and properly drained; complaints were also made of a nuisance arising from pigs kept by Mr. Rough, Wandsworth Common, and a memorial signed by about 20 inhabitants of the immediate neighbourhood to the effect that there was no nuisance. The pigs were however eventually removed; in many other instances pigs have been entirely done away with. Nos. 6 & 9, Latchmere Grove, and No. 2, Wayland Road being amongst the worst cases.

The only case of overcrowding brought to notice in this district occurred at No. 16, Surrey Lane South, where a family consisting of 2 adults and 7 children occupied one room, the children's ages being from 17 years downwards; a short notice was served, and the family left the parish.

An interesting example of how people are disposed to look *from* home instead of *at* home for cause and effect occurred at Holme House, Spencer Park, where a child 11 years of age died of Diphtheria; an offensive smell had been noticed in the house for some time, and Mr. Stenning, the occupier, complained that the smell came from an empty house near there. A careful inspection was made of the house complained of, but could detect nothing; an inspection of the drains, water supply, &c., of Holme House was also made, and everything was found in good sanitary condition, but on going into the garden and directly under the window from which the smell

was stated to have entered the house, was found a water butt containing a quantity of stagnant water and decomposed vegetable matter of a most offensive nature. After its removal there was no further complaint.

Fishmongers have had due attention. Three having being fined 40s., 20s. and 10s., respectively, for throwing fish offal into the streets, and for one, a magistrate's order was obtained to restrain him from creating a nuisance to his neighbours by allowing fish offal to accumulate on his premises.

Orders of the Board were made to abate nuisances arising from accumulations of vegetable matter, &c., on land in Park Road, New Wandsworth, and at the rear of Nos. 39 and 41, High Street.

The Company laying out new streets on the Bolingbroke Park Estate, were ordered to discontinue using dust-bin refuse and vegetable matter for making up the roads, and in each case the orders were obeyed.

A serious case of Typhoid Fever broke out in a family in Home Road causing death in one case and serious illness to four other children, the whole of which had, undoubtedly, caught the disease from a bed which had been thrown on some public ground in the Latchmere Road, on which they had all been playing. A reward of 20s. was at once offered by the Board, and handbills circulated cautioning any person against throwing infected bedding in public places.

The bulk of the sanitary work carried out will be best shown by reference to the following abstract ;—

Abstract of Sanitary Works carried out in West Battersea during the year ending December 31st, 1878 :—

No. of houses inspected	...	...	...	...	...	1688
No. of 1st notices served	...	...	...	...	...	390
No. of 2nd notices served	...	...	...	...	...	30
No. of houses disinfected, and where necessary cleansed after Small Pox	...	...	...	...	...	38
No. of houses disinfected, cleansed, and where necessary Bedding burnt after Fever	...	...	...	...	...	15
Defective drains cleansed and repaired	...	...	...	...	...	103
Cesspools abolished	...	...	...	...	...	6
Accumulation of manure, &c., removed	...	...	...	...	...	32
Dust bins provided	...	...	...	...	...	211
Defective apparatus to water closets repaired	...	...	...	...	...	53
Water supply added to houses	...	...	...	...	...	8
Water supply added to closets	...	...	...	...	...	45
Pig nuisances abated	...	...	...	...	...	12
Covers provided to cisterns	...	...	...	...	...	148
Cisterns provided	...	...	...	...	...	14
Notices served on shopkeepers to desist from sweeping trade refuse into the streets	...	...	...	...	...	10
Obstructions on the footpaths removed or license granted...	...	...	...	...	...	20
No. of houses where separate drainage has been enforced	...	...	...	...	...	9
Overcrowding abated	...	...	...	...	...	1
Dilapidated closets repaired	...	...	...	...	...	14
Unwholesome meat destroyed	...	...	...	...	(lbs.)	240
Fishmongers fined for throwing fish offal into the street	...	...	...	...	...	3
(Public House) urinals provided with doors	...	...	...	...	...	5
Summonses	...	...	...	...	...	12

JOSEPH OAKMAN,

Medical Officer of Health, West Battersea.

CLAPHAM.

The past year (1878) was the 23rd year of the Health Officer's labours in this District. Towards the close it was a year of exceptional severity, and, in a sanitary sense, a very trying and fatal one.

The following introductory table I have presented to my readers for many years, with the view of showing them our actual progress from a social and material point of view. All the important statistics of this Sub-district are placed before them in a tabular form, viz. :—the births, the marriages, and the deaths during the last eleven years.

YEARS	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878
Marriages	272	234	158	249	236	257	284	243	313	319	282
Births	801	838	867	864	858	929	937	965	1029	1019	1095 *
Deaths	450	508	480	604	482	475	528	548	545	467	580
Excess of Births over Deaths ...	351	330	387	260	376	454	409	417	484	552	515

*Of this number I successfully vaccinated in 365 cases. — J. M. D.

From the above table it can be seen that the excess of births over deaths, *i.e.* the natural increase of the population, still continues high, although the mortality of the past year was excessive.

contrasting with the preceding year, which was remarkable for its unusual mildness and low mortality.

At this advanced period of the Census decade, and until we are actually in possession of the returns, it would be vain to calculate, with anything like accuracy, what the strength of our population may be ; but we may adopt the method of forming an estimate made use of by the Registrar-General, and place the population of this Sub-district in round numbers at 32,000.

The births registered during the year 1878 numbered 1,095—the largest number we have ever had, clearly showing the natural increase of our population, and giving evidence of our material prosperity. They will give a birth-rate equal to 34·2 births in every 1,000 per annum, or 3·42 per cent.

The deaths registered during the past year were also numerous, numbering 580, and giving a death rate of 18·12 deaths in every 1,000 of our population per annum, or 1·812 per 100 per annum. Eleven of the above deaths took place in the public institutions we possess, but many of our parishioners died in institutions outside of our Sub-district.

I again introduce the usual Mortality Table, so clear and concise as to make comments from me unnecessary, unless it be to point to the exceptional mortality of the past year.

STATISTICS OF MORTALITY.

CLAPHAM.		Total Deaths from each Class of Disease, &c., in the Sub-District.	SEX		AGE								SOCIAL POSITION			
Population in 1871—27,347. Official Population in middle of year 1878—32,031. Area in Acres—1,233.			Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20, and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
DISEASES																
And other Causes of Death																
Classes :—																
1. Zymotic	Small Pox .	3	...	3	...	...	1	2	...	...	1	...	...	1	1	1
	Measles ...	23	11	12	6	16	...	23	...	...	...	...	...	...	1	22
	Scarlatina .	12	5	7	...	3	8	12	...	...	...	...	...	...	5	7
	Diphtheria .	3	3	...	...	2	1	3	...	...	...	...	...	...	1	2
	Quinsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	4	4	...	...	4	...	4	...	...	...	...	...	...	...	4
	Whooping Cough ...	29	12	17	9	19	1	29	...	...	...	...	...	...	5	24
	Typhus, &c.	5	4	1	1	1	...	2	2	...	1	...	...	...	1	4
	Erysipelas .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Metria, Childbirth	3	...	3	...	...	...	...	3	...	...	...	...	...	1	2
	Carbuncle .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa, etc. ...	26	14	12	14	10	...	24	1	...	1	...	...	2	5	19	
Cholera ...	2	1	1	...	...	...	...	...	...	2	...	...	...	...	2	
Totals of Zymotic Class.		110	54	56	30	55	11	99	6	...	5	...	...	3	20	87
2. Tubercular		70	36	36	6	5	5	22	26	19	3	...	...	2	20	48
3. Of Brain, Nerves, &c.		60	29	31	12	11	2	27	5	12	14	2	...	6	14	40
4. Of the Heart, &c. ...		45	20	25	3	...	1	5	5	17	16	2	...	5	16	24
5. Of Respiratory Organs		106	57	49	44	23	2	69	4	10	20	3	...	6	24	76
6. Of Digestive Organs		20	10	10	3	...	...	3	1	7	9	...	...	3	7	10
7. Of Urinary Organs .		10	6	4	...	...	...	...	1	3	6	...	...	3	5	2
8. Of Organs of Generation		4	...	4	...	...	...	...	...	1	3	...	...	...	...	4
9. Of Joints, Bones, &c.		10	4	6	2	3	...	8	1	1	...	...	...	...	3	7
10. Of Skin .....		...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
11. Premature Birth, Low Vitality, Malformation, &c. ...		60	35	25	56	4	...	60	...	...	...	...	...	1	15	44
12. Of Uncertain Seat .		3	2	1	...	...	1	1	...	...	2	...	...	...	1	2
13. Age.....		36	7	29	...	...	...	...	...	...	15	21	...	5	17	14
14. Violence.....		7	5	2	1	...	1	3	1	3	...	...	...	...	2	5
15. Not Specified		39	18	21	...	1	...	2	1	12	24	...	...	8	12	19
TOTALS		580	283	297	157	102	23	299	51	85	117	28	...	42	156	382

Diseases of the epidemic class, which for the most part afflict the young, have at all times engaged the special attention of the sanitarian. I have placed these diseases in a tabular form in order that they should show their comparative fatality during the past and the ten preceding years:—

YEARS.	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878
Small-pox.	0	10	6	94	14	0	0	2	14	12	3
Measles ...	9	2	14	2	30	11	20	3	13	5	23
Scarlatina.	14	29	45	20	6	2	33	22	13	4	12
Diphtheria	7	0	2	3	3	3	4	6	0	...	3
Whooping-cough ...	25	29	9	18	25	14	15	17	17	12	29
Typhus ...	26	17	12	10	11	10	6	2	5	4	5
Diarrhœa & Cholera	28	30	31	31	39	25	27	22	24	18	{ 26 2
TOTALS ...	109	117	119	178	128	65	105	74	86	55	103

In noting the increase in fatality from epidemic disease during the past year, it should be taken into consideration that our population is largely augmenting, and the increase is therefore more apparent than real. The increase is also among the milder forms of epidemic disease.

In nearly all my former reports I dwelt particularly on the two great epochs of human existence—youth and age. First, children at and under ten years give a mortality almost equal to one half the total. This sad fact I have had to record year by year during the last dozen years.

Again at the opposite extreme of life 134 deaths occurred at ages ranging from 60 and upwards, the past

being an exceptionally severe year for the old and infirm ; 28 of the above number exceeded 80 years, and 4 were over 90, the oldest reached 94 years.

In the past year we did not have so many inquests as we have had in former years. The following comprise all those that were recorded during the year :—

Two persons accidentally killed on railways.

Two persons accidentally run over on roads.

Two infants, newly born, died through want of attention at birth.

One female died through drink and exposure.

Three died suddenly owing to heart disease.

One male died by suicide.

Nine persons, whose ages ranged from three weeks to 73 years, died and were buried uncertified, *i.e.* the usual certificate of the cause of death not being registered.

The sanitary works, executed during the year are clearly set forth in Table VI. in the Appendix. In it may be seen the large number of houses inspected and specially examined by the Surveyor, and the Inspector of Nuisances, and myself; also the large amount of other sanitary works accomplished, more particularly those relating to household necessities and accommodation. The paving, scavenging, and watering of our streets (an important matter which I dwelt on in some former reports) are well attended to. The renumbering of the streets are in some places defective, which occasions great inconvenience.

By means of the diligent supervision of the Health Officers in these matters, the Registrar-General states

that the mortality has been reduced from 26·2 to 22·8 per 1,000, showing thereby, that a saving of 12,178 lives is effected all over the metropolis annually.

The annual visitation and examination of all the slaughter-houses and cow-houses in this sub-district have been duly made, not only once, but in some cases repeatedly. The Government regulations regarding the former are excellent, and although they press hard on the occupier in the first instance, they ultimately prove a great advantage and lessen expense in time. The new regulations as to dairies, cowsheds, and milk-shops (see Order of 1879), also are very good. These places require constant supervision, else they become a source of great evil to the community.

We had a large number of pig nuisances removed (see Table VI. in the Appendix) during the past year. Of nuisances they are amongst the greatest, giving the most trouble, and constantly recurring.

It is now more than twenty years ago since I first pointed out that the water taken from the Thames could not be made, by any known process, fit for human consumption.

Col. Bolton, Water Examiner to the Government, has stated, that in some instances he has seen it resemble pea-soup, showing how very difficult it is, if not impossible, for the water companies to make this water by any process whatever fit and proper for human consumption.

It exceeds all human endurance, that we should have to drink this filthy water of the Thames, that receives the sewage from and above Oxford down to the Company's intake, in all that course winding its way through and receiving the drainage from lands highly cultivated and manured with offal and refuse matters, &c.

Mr. Bateman, a water engineer of great experience, who constructed the Manchester and the Glasgow Water-

works, estimates that London may be supplied with 100 million gallons of fresh water daily from Wales, at an expenditure of £470,000 annually. The sum we now pay for the feculent water of the Thames is computed to amount to £1,283,548. This estimate would make an annual saving of £813,548 in favour of those who are now doomed to drink the water of the Thames.

JOHN MAC DONOGH,

Medical Officer of Health, Clapham.

WANDSWORTH.

The health of this Sub-district during the year 1878, considered whether in relation to the nature the amount or the fatality of the sickness which prevailed, was eminently satisfactory. Although the mortality exceeded that of the year preceding (which, it will be remembered, was unprecedentedly low), it was still very low in comparison with the average, and bears favourable comparison with the latter in the more important circumstance of representing a very much less amount of fatality from diseases of the epidemic class. Satisfactory evidence of the attainment of this high standard of health will be found on an examination of the following statistics which have been derived, as usual, from an analysis of the Registrar-General's Returns, and the local public Records of sickness and mortality.

VITAL STATISTICS.

Population.—The number of the inhabitants first claims attention, for as the correctness of the death-rate

and of other calculations is dependent on that of the population, it is desirable to determine the latter with as much accuracy as possible. According to the method of calculation adopted by the Registrar-General, which is based on the assumption that the population has increased since the period of the last census, in the same geometrical ratio as it had done during the ten preceding years, the mean number of persons living in the Sub-district during the past year was 24,449. A closely approximate number is arrived at by another mode of calculation, which (as was explained in the Annual Report for 1875, pages 6 to 8) consists in the employment of the ratio borne by the mean annual number of births to the mean annual population during a considerable period of time (20 years, 1851-71,) as the measure of the ratio borne by the births to the population during the year under review.

Mortality.—The total number of deaths registered during the year was 422. 222 were of males and 200 of females. 115 took place in public institutions; viz., in the Surrey County Lunatic Asylum, 96; in the Hospital for Incurables, 10; in St. Peter's Hospital, 5; in the House of Correction, 3; and in the Patriotic Asylum for Girls, 1. 28 deaths of Wandsworth parishioners took place in the Infirmary of the Union which were registered in Battersea, in which parish that institution is situated.

Death-rate.—The death-rate determined by the deaths registered and the estimated population was 17·26 per 1000 persons living on an average during the year, and closely corresponds with that of the healthiest rural districts. But even this very favourable rate is considerably higher than what will be found, on further examination, to have been the *natural* death-rate of the past year; for (as explained in previous Reports) this mode of calculation, sufficiently satisfactory under ordinary circumstances, is affected in this Sub-district to a great extent by the

disturbing influence of several public institutions which it is necessary to take into consideration. Thus, the mortality of the Surrey County Lunatic Asylum, St. Peter's Hospital, and the Hospital for Incurables, the inmates of which institutions are derived from without the parish, undergo no natural increase and suffer a high mortality, constituted considerably more than one fourth (26·3 per cent.) of all the registered deaths, so that a rate so derived must be obviously unduly raised by the causes referred to. On the other hand the register contains no record of the deaths of Wandsworth parishioners who died in the Infirmary of the Union. In order to obtain satisfactory data therefore for the determination of the natural death-rate it becomes necessary to withdraw from the calculation the population and mortality of the institutions referred to, and to add to it the deaths of Wandsworth parishioners which have occurred in the Union Infirmary during the year. The death-rate of the past year determined in the manner indicated was 14·41 per 1000 or 2·59 per 1000 less than that of the healthiest rural districts.

Birth-rate.—The births registered were 718 in number ; 386 were of males and 332 of females. The birth-rate calculated on the foregoing estimate of the population corrected for institutions was 30·53 per 1000 persons living of all ages ; and the rate of *natural increase* 16·12 per 1000.

The following Table contains a summary of all the causes of death arranged in accordance with the classification of the Registrar-General, showing the sex, social position and age at death at different periods, and particularizing the several diseases of the Zymotic class :—

STATISTICS OF MORTALITY.

WANDSWORTH.		Total Deaths from each Class of Disease, &c., in the Sub-District	SEX		AGE							SOCIAL POSITION				
Population in 1871—19,783. Official population in middle of 1878—24,449. Area in Acres—2,478.			Males	Females	Under 1 year	From 1 to 5 years	From 5 to 10 years	Under 20 years, including all under 10 years	At 20, and under 40 years of age	At 40, and under 60 years of age	At 60, and under 80 years of age	80 years and upwards	Nobility and Gentry	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes
DISEASES, And other causes of Death.																
Diseases Classified.																
Classes :—																
1. Zymotic	Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	4	4	...	2	1	1	4	...	...	...	...	...	2	...	2
	Scarlatina	2	2	...	1	...	1	2	...	...	...	...	...	...	1	1
	Diphtheria	4	3	1	...	2	2	4	...	...	...	...	...	...	1	3
	Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	8	5	3	1	5	2	8	...	...	...	...	...	...	1	7
	Whooping Cough	6	3	3	4	2	...	6	...	...	...	...	...	...	...	6
	Typhus & Infantile Fever	3	1	2	...	...	1	1	2	...	...	...	...	...	...	3
	Erysipelas	1	1	...	1	...	...	1	...	...	...	...	...	...	...	1
	Metria, Childbirth	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1
	Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea & Dysentery	19	10	9	10	3	...	13	...	3	3	...	...	1	5	13	
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class		48	29	19	19	13	7	39	2	4	3	...	...	3	8	37
2. Tubercular		60	27	33	9	2	2	20	22	15	2	1	...	7	13	40
3. Of Brain, Nerves, &c.		111	61	50	13	11	2	28	25	31	25	2	3	9	19	80
4. Of the Heart, &c.		19	9	10	...	...	...	3	4	6	6	...	1	...	8	10
5. Of Respiratory Organs		86	44	42	24	13	1	40	11	7	24	4	4	...	12	70
6. Digestive Organs		29	14	15	4	2	...	7	4	10	6	2	...	2	11	16
7. Urinary Organs		4	2	2	...	1	...	1	...	...	3	...	...	...	2	2
8. Of Organs of Generation		4	...	4	...	...	...	...	...	...	4	...	...	...	1	3
9. Of Joints, Bones, &c.		1	1	...	...	...	...	...	1	...	...	...	...	...	1	...
10. Of Skin		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c.		18	12	6	17	...	...	18	...	...	...	...	...	...	4	14
12. Of Uncertain Seat		14	3	11	1	...	...	1	1	5	7	...	2	...	4	8
13. Age		14	7	7	...	...	...	...	...	...	6	8	2	1	1	10
14. Violence		13	12	1	1	...	1	3	3	6	1	...	...	...	5	8
15. Not Specified		1	1	...	1	...	...	1	...	...	...	...	...	...	...	1
TOTALS		422	222	200	89	42	13	161	73	84	87	17	12	22	89	299

As might be anticipated from a consideration of the causes by which the death register is unduly augmented, Diseases of the Brain and Nerves (Class 3) will be seen, on comparing the several classes in the foregoing Table, to have a great numerical excess. For reasons similar to those referred to in the determination of the death-rate, the proportion borne by this class of diseases can have no relative value in estimating the causation of mortality proper to this parish. Excluding this class, the first in order of fatality was Class 5 (Diseases of the Organs of Respiration), which formed upwards of one-fifth of all deaths. Two-thirds of the deaths recorded under this class were due to Bronchitis, which was the most fatal single disease, in this respect taking the place usually occupied by Consumption which was of average amount. Class 2 (the Tubercular) next formed 14 per cent., corresponding with the average. The next most fatal was Class 1 (the Zymotic, Endemic, Epidemic, and Contagious), which usually takes precedence of the others, forming 10 per cent. The classes which were in excess of the corresponding averages of the past ten years were Class 3 (Diseases of the Brain, &c.), to the extent of one-sixth; Class 5 (Diseases of the Organs of Respiration), nearly three-fifths; Class 6 (Diseases of the Digestive Organs), one-fourth; and Class 8 (Diseases of the Generative Organs), slightly. All the other classes were below the average (but not to an extent requiring any special comment), with the exception of Class 1 (the Zymotic), which was about 30 per cent. less than the average. The unusually great diminution in the fatality from this class, and the excess in that of Class 5, are the most noteworthy points for observation in the Table.

Age at Death.—As might be anticipated from the greatly-diminished prevalence of the diseases principally incidental to childhood, the mortality of infants was considerably below the average. The deaths of infants during the first year of life were 21 per cent.; of infants under 5 years of age, 31 per cent.; and of persons under 20 years of age, 38 per cent. of all deaths. Fourteen deaths were

registered as having resulted from old age, unassociated with disease; but no less than 52—22 of males and 30 of females—took place above the age of 70, viz., from 70 to 75, twenty-three; 75 to 80, fourteen; 80 to 85, twelve; at 86, one; and at 87, two.

Social Position of the Deceased.—The great diminution in the proportion of deaths borne by the labouring classes to the whole of the other classes of the inhabitants which was observable in the year 1877 has been more than maintained during the past year, the proportion during the latter having been 70 per cent. compared with 72 per cent. of the previous year and with 76 per cent., the average of the preceding ten years. This lessening of the death-rate of the poorer classes in relation to the rest of the population furnishes reliable evidence of the sanitary progress which has been made.

Epidemic Diseases—their prevalence and fatality.—The following Table shows the deaths which have resulted from the seven principal Epidemic Diseases during the past and ten preceding years, and the relation which they bore to the deaths from all causes:—

YEARS	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	<div></div>		Fever—Typhus and Typhoid	Total Deaths From Epidemics	Total Deaths from all causes	Per centage of deaths from Epi- demics to deaths from all causes
						Cholera	Diarrhoea				
1868	...	8	5	2	20	...	22	7	64	394	16.2
1869	...	23	36	...	7	...	23	5	94	429	21.9
1870	...	2	48	4	16	...	33	10	113	450	25.1
1871	14	31	23	...	11	...	21	3	103	453	22.7
1872	1	5	1	3	13	...	20	4	47	365	12.8
1873	...	4	...	3	8	...	22	7	44	433	10.1
1874	...	14	2	...	19	...	12	5	52	453	11.5
1875	1	2	5	2	14	...	17	5	46	420	10.9
1876	1	17	12	1	10	2	16	12	71	461	15.4
1877	...	...	21	...	11	...	16	9	57	384	14.8
1878	...	4	2	4	6	...	19	3	38	422	9.0

It will be seen with satisfaction, on reference to the above Table, that the deaths from these diseases were much less during the past year than in any of the preceding ten years, and that they were less than the average number of the same period by no less than 45 per cent., nearly. Diarrhoea, which was the most prevalent and fatal of these diseases, was present, as usual, generally throughout the year, and, as usual, most fatal in the autumn months. Measles was the next most prevalent, and was attended with fatality during the first six months only. Scarlatina was present to a slight extent during the first six months, and Diphtheria during the latter six months. Whooping Cough prevailed to a considerable extent during the autumn and winter months. Fever occurred during the last six months, but was fatal in November and December only. Although no death is recorded in the Table as having resulted from Small Pox, 9 cases of this disease occurred during the first six months, 8 of which were sent to hospital, where 3 of them ended fatally. There appears to have been an unusual correspondence between the amount of fatality from these diseases and the height of the temperature which prevailed in the several quarters of the year. This will be seen on reference to the following Table, which shows the months in which the deaths from these diseases occurred, and the mean temperature of each quarter. Thus, 4 deaths occurred in the first quarter, with a mean temperature of

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December
	Mean Temp. 41°·5			Mean Temp. 54°·6			Mean Temp. 60°·8			Mean Temp. 41°·6		
Small Pox
Measles	1	2	1	...	...	...	...	...	...	...
Scarlatina	1	...	...	1	...	...	...	...	...	...	...
Diphtheria	1	...	...	1	1	1	...
Whooping Cough	1	...	...	1	2	1	1	...	...
Diarrhoea	2	...	...	1	...	5	6	5	...	...	...
Fever	2	1
TOTALS.....	...	3	1	3	3	1	6	8	7	2	3	1

41°.5; 6 deaths in the fourth quarter, with a mean temperature of 41°.6; 7 deaths in the second quarter, with 54°.6 mean temperature; and in the third quarter, 21 deaths, with a mean temperature of 60°.8.

I would again beg to direct attention to the very mischievous practice of school managers, which permits the return to school of children recovering from infectious diseases. Such a practice, which School Board official zeal in enforcing attendance very generally promotes, is, I am satisfied by experience, one of the most fruitful sources of the propagation of such diseases, and ought therefore to be most jealously guarded against.—(See Annual Report for 1874, pages 26 and 27.)

Sickness and Mortality amongst the Parochial Poor.—Table 5 (Appendix) exhibits the nature, amount, and fatality of the sickness which came under treatment amongst the parochial poor. The figures therein contained, especially those relating to Epidemic disease, will be found to furnish further well-marked evidence corroborative of the indications already derived from the death-register, of the highly favourable state of this Sub-district during the past year. The amount is found to have been considerably less than half the average of the previous ten years, and even somewhat less than that of the previous year, which was exceptionally low; the fatality was below the average amount, forming 3·7 per cent. only of all cases of sickness. The amount of Epidemic disease which prevailed was scarcely more than one-third the average, and its fatality (inclusive of the cases which died in Hospital) less than half the average. The total amount of sickness, with its results, which has prevailed generally, if accurately known, would furnish the best exposition of the condition of the health of any locality. In the absence of the possibility of procuring such a record, the figures in the Table above referred to, which show precisely the sickness and mortality of a considerable portion of the population, may be made available for deriving an approxi-

mate estimate of the amount as well as of the intensity of the sickness which has prevailed generally throughout the Sub-district. By assuming the proportion which the deaths bear to the cases of sickness amongst the parochial poor as the proportion borne by the deaths to the cases of sickness amongst all classes, the total amount of sickness which prevailed during the past year is calculated to have affected about 46 per cent. of the population, representing one death in every 27 cases of sickness; the average of the preceding six years, was about 50 per cent. of the population.

Violent Deaths—Inquests—Uncertified Deaths.—26 inquests were held during the year with the following results, viz :—From Natural Causes, 11; from Violence, 15, of which latter, 11 were the results of Accident; 1 of Suicide; 1 of Execution; and 2 of causes unknown.

The number of unattested deaths, it is satisfactory to find, has gradually diminished during the last few years, and during the past year one death only was registered without the usual medical certificate; still it must be urged, as has been repeatedly done in previous Reports, that security of life and every other interest of society require that not even a single death should be registered without the intervention of medical testimony of its cause.

Sanitary Proceedings.—A brief summary of the principal sanitary proceedings, which were carried out during the year is, as usual, contained in Table 6 (Appendix). A very much larger amount of work generally will be found recorded than heretofore, and especially in the number of inspections in the purification of infected houses, and the removal of nuisances; ten cases of the latter necessitated an appeal to the law for their abatement. All the slaughter-houses and cowhouses of the Sub-district were examined and reported on previous to the renewal of their owners' licenses. Comprehensive regulations have been recently issued by the Metropolitan

Board of Works for securing proper sanitary conditions and management of the cow houses and dairies of the Metropolis, which cannot fail to be productive of great benefit in improving the quality of the milk, the purity of which is of extreme importance to the whole community, especially to the sick and a large proportion of the infant population. It is much to be regretted that in like manner regulations have not been applied to *Piggeries*, which are such a frequent source of nuisance. No less than 143 inspections of premises, in reference to nuisances arising from the keeping of pigs, were made during the year. By the 68th section of the 57 Geo., 3rd cap. 29, the keeping of swine was prohibited within 40 yards of any street or public place. If the letter of this Act were put in force it would satisfactorily dispose of the great bulk of this extensive evil.

For several other sanitary matters having a general as well as local interest, such as the Water Supply, Sewer Ventilation, &c., the reader is referred to the introductory part of the Report. It remains only to add, in conclusion, that the collective evidence derivable from the foregoing statistical information, will be found on investigation to fully bear out the gratifying announcement made at the beginning of this Report of the very highly favourable condition of the health of the Sub-district during the past year.

GEORGE EDWARD NICHOLAS, M.D.,

Medical Officer of Health, Wandsworth.

STREATHAM

INCLUDING

BALHAM AND TOOTING.

This being the first occasion on which it has fallen to my lot to write a Local Summary for the Annual Report of the Medical Officers of Health, I must ask the kind indulgence of my readers, if I have failed to convey the full meaning of the facts and figures, or to elucidate exhaustively the subject under review. I trust it will not be out of place to say here that I hope by zeal, watchfulness and a faithful discharge of the duties of my office, to prove of service to the District as a Sanitarian, and to merit the good opinion of those who selected me to fill the place of my able and respected predecessor, the late Dr. Noël, as Medical Officer of Health for Streatham and Tooting.

VITAL STATISTICS.

Population.—The population at the middle of the year 1878 was 17,667, estimated in accordance with the official method of calculation; there is reason to believe that these figures do not nearly represent the actual number of persons living on an average during the year; there has been for some years past, and notably during

the last 3 or 4 years, a continued influx of new comers into this sub-district, and this accession to the population the official method fails in estimating. It has been computed by those qualified to form and express an opinion that our population is now rather over than under 20,000, and these figures should not be lost sight of when the death-rate is perused.

Birth-rate.—The births were 609 in number—299 of males, and 310 of females, showing an increase of 24 on the number recorded in 1877. Calculated on the official estimate of the population the birth-rate of the past year was 34·4 per 1,000 persons living of all ages; the excess of births over deaths was 325; the rate of natural increase being 18 per 1,000.

Deaths and Death-rate.—The total deaths registered during the year amounted to 284 or 40 more than the number recorded in 1877; 163 were of males and 140 of females. The death-rate deduced from the whole of the deaths registered, and the estimated population was 16·7 per 1,000 persons living on an average during the year; and, though this death-rate compares favourably with the parishes in this District, and is nearly 1 per 1,000 less than that of rural Districts, it exceeds by 2 per 1,000 the real death-rate, if my estimate of the population is accepted as approximately correct.

The following table shows clearly the cause of death, sex, age, and social position of all persons whose deaths were registered during the year.

STATISTICS OF MORTALITY.

STREATHAM, INCLUDING TOOTING & BALHAM.		Total Deaths from each Class of Disease, &c., in the Sub-District.	SEX		AGE								SOCIAL POSITION					
Population in 1871—14,475. Official Popula- tion middle of 1878—17,667. Area in Statute Acres—3,465.			Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Mer- chants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.		
DISEASES, And other Causes of Death.																		
Classes :—																		
1. Zymotic	Small Pox...	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...
	Measles	11	6	5	6	5	...	11	...	...	...	...	...	...	3	8	...
	Scarlatina ...	2	2	...	...	1	1	2	...	...	...	...	...	1	...	1	...
	Diphtheria ...	3	1	2	...	1	2	3	...	...	...	...	...	...	1	2	...
	Quinsy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough ..	11	8	3	7	4	...	11	...	...	...	...	...	...	3	8	...
	Typhus and other	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Fevers ...	1	...	1	...	1	...	1	1	...
	Erysipelas...
	Metria, Childbirth
	Carbuncle
	Influenza
	Diarrhoea & Choleraic Disease	13	8	5	10	1	1	12	...	1	1	2	10
Totals of Zymotic Class		42	25	17	23	13	4	40	1	1	...	...	...	2	10	30	...
2. Tubercular*		30	14	16	5	4	2	15	8	7	...	...	1	2	11	16	...
3. Of Brain, Nerves, &c.		57	27	30	21	7	1	31	4	7	14	1	1	7	26	23	...	
4. Of the Heart, &c. ...		31	14	17	3	...	...	3	4	11	12	1	2	2	11	16	...
5. Of Respiratory Or- gans		44	22	22	7	2	...	10	4	9	17	4	2	5	10	27	...	
6. Of Digestive Organs		29	12	17	2	...	...	2	4	15	8	...	2	5	13	9	...
7. Of Urinary Organs .		7	6	1	...	...	...	1	1	3	2	...	1	1	3	2	...
8. Of Organs of Gene- ration		2	...	2	...	...	...	...	1	1	...	...	...	...	1	1	...
9. Of Joints, Bones, &c.		2	...	2	...	...	...	...	...	2	...	...	...	1	1	...	...
10. Of Skin .....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Mal- formation, &c. ...		17	8	9	15	1	...	17	...	...	...	...	...	2	4	11	...
12. Of Uncertain Seat...		3	...	3	...	...	...	...	1	...	2	...	2	...	...	1	...
13. Age		17	8	9	...	...	...	...	...	7	10	3	4	3	7	...	...
14. Violence.....		3	...	3	1	2	...	3	...	...	...	...	...	2	1	...	...
15. Not Specified.....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS		284	136	148	77	29	7	122	28	52	65	19	14	31	95	144	...	

* Of the Tubercular class of Diseases, 17 deaths appear to have resulted from Phthisis.

Zymotic Diseases.—The various epidemic diseases under the several headings in the first class of the preceding table caused 42 deaths, or about a sixth part of the whole mortality. This number is in excess of former years, and is chiefly due to measles, whooping cough, and diarrhœa. 35 deaths arose from these three diseases, and they occurred principally among the industrial classes. Measles and whooping cough caused 22 deaths, and represent a somewhat large epidemic. Diarrhœa was fatal in 13 instances; 10 were in infants under 1 year of age.

Small-pox was only fatal in one case, and that was in a person quite unprotected by vaccination. The disease was, however, present to some extent, as may be seen by referring to Table V. in the Appendix. Five cases occurred amongst the Union poor, two of which were imported into the district. They were all sent into hospital, where two ended fatally.

Scarlet Fever was fatal in two cases, diphtheria in three, and typhoid fever in one, thus from these four serious diseases we only have a record of seven deaths, forming a lower total when combined than in any of the five preceding years. The mortality from epidemic diseases yields a percentage of 14·7 upon the number of deaths from all causes during the year.

The following table contrasts all the deaths which resulted from the seven principal epidemic diseases during the past and five preceding years:—

DISEASES.		1873	1874	1875	1876	1877	1878
Seven principal Epidemics.	Small Pox .....	...	2	...	...	4	1
	Measles	3	9	2	2	2	11
	Scarlatina	1	3	4	4	1	2
	Diphtheria.....	...	1	3	7	3	3
	Whooping Cough.....	8	3	5	7	6	11
	Typhus, &c.....	7	2	2	5	5	1
	Diarrhœa and Choleraic Disease.....	10	6	9	6	4	13
	Totals:—	29	31	25	13	25	42

Non-Zymotic Diseases.—Referring once more to the table of mortality in order to examine and compare with former years, the other diseases, we find first on the list class 2, Tubercular diseases. In this class 17 deaths from Phthisis are included, making a total of 30 deaths from Tuberculosis, and, with the exception of the year 1877, this shows a decrease upon the number recorded in any one of the 5 preceding years.

Diseases of the Brain and Nerves, class 2, caused 57 deaths, and are largely in excess of former years. They formed 27 per cent. of all causes of death.

Diseases of the respiratory organs (class 5) were above the average, and caused 44 deaths.

Diseases of the digestive organs (class 6) resulted in 29 deaths, and were above the average of the last 5 years.

Deaths from violence (class 14) give only a record of 3 deaths, a little over half the usual average. In classes 10 and 15 we find no record of any death.

YEARS	1873	1874	1875	1876	1877	1878
Tubercular	35	35	34	31	23	30
Of Brain, Nerves, &c.....	28	42	41	39	33	57
Of the Heart, &c.	23	17	20	18	33	31
Of Respiratory Organs	49	19	34	52	36	44
Of Digestive Organs	12	17	21	22	25	29
Of Urinary Organs	6	3	6	6	7	7
Of Organs of Generation	3	2	...	6	11	2
Of Joints, Bones, &c. ....	...	1	1	2	7	2
Of Skin.....	1	...	1	...	2	...
Premature Birth, Low Vitality, Mal-formation, &c.....	16	12	14	14	15	17
Of Uncertain Seat	6	4	8	2	4	3
Age	17	8	20	23	14	17
Violence	5	6	6	9	5	3
Not Specified	4	1	2	1	..	...
TOTALS	205	167	208	225	215	242

Age at Death.—27 per cent. and upwards of all deaths occurred to infants during the first year of life; upwards of 37 per cent. to children under 5 years of age, and upwards of 42 per cent. to persons under 20 years of age.

At the other extreme of life 17 deaths were registered as having resulted from old age unconnected with any disease. But 40 deaths are recorded as having occurred above the age of 70 :—viz., from 70 to 80, 23 ; 80 to 90, 14 ; and 2 at 90, and 1 at 91.

Sickness and Mortality among the Union Poor.—Table V. in the Appendix shows the number of persons who were under treatment as well as the deaths which took place among the out-door Union Poor of the District, 91 cases were treated which includes 19 cases of epidemic disease, 5 of Small Pox, 10 of Measles, 3 of Diarrhœa, and 1 of Erysipelas, 2 deaths resulted from the zymotic cases.

Social Position.—The higher classes in the aggregate make a total nearly equal to the industrial. About three-fourths of epidemic diseases occurred among the latter class. They also contributed more deaths to respiratory diseases and premature birth. On the other hand the higher classes contributed more to disease of the brain and nerves, and to diseases of the Digestive Organs.

Inquests, Violent Deaths, &c.—15 inquests were held during the year with the following results :—

- I. Natural (1) Heart Disease, 7.
 - „ (2) Spontaneous Rupture of the Aorta 1.
 - „ (3) Diseases of the Liver and Kidneys, 1.
 - „ (4) Syncope in a Twin Child, 1.
 - „ (5) Fit in Bed, 1.
 - „ (6) Cold and Exposure in an Intemperate Female, 1.
- II. Accidental (1) Burns, 2.
 - „ (2) Accidental Asphyxia 1.

There was one uncertified death, the facts of the case were laid before the Coroner, who did not think it necessary to hold an inquest, the death being registered Hæmoptysis.

Sanitary Proceedings.—Table VI. in the Appendix contains a summary of the sanitary operations, it shows that a large amount of work was accomplished in the construction of new sewers, branch drains, waterclosets, &c., also in the inspection of houses and premises, and in the removal of pig and other nuisances. For the figures in respect of these and other works I refer the reader to the Table.

It is satisfactory to find that in no case was an appeal to the law required.

The Cow and Slaughter Houses were inspected as usual, and found in a satisfactory condition.

FIELD FLOWERS SUTTON, M.D.,

*Medical Officer of Health
for Streatham, including Balham and Tooting.*

PUTNEY and ROEHAMPTON.

The death-rate of this Sub-district during the year shows an advance upon that of last year. The probable under-estimate of the population which we are obliged to take tends to make the death-rate appear higher than it really is.

Population.—The year 1878 being the seventh from the census-year, we have good reasons for believing that our population, calculated according to the rate of increase prevailing between the years of the two last censûs, is considerably short of the actual numbers. Still we are compelled for the sake of uniformity and in the absence of other authenticated statistics to adopt this uncertain and unsatisfactory method. The population of this Sub-district according to that method at the middle of 1878 was 11,597.

Births and Birth-rate.—The number of births registered during the year was 338—a decrease of 13 upon the number registered in 1877, and an increase of 38 upon 1876. Of these 175 were of males and 163 of females. The birth-rate was 29·1 per 1,000, or 1 birth in every 34 persons. This birth-rate is very low. That of the Metropolis was 36·2, and that of the entire Wandsworth District 39·4.

Deaths and Death-rate.—The number of deaths registered in 1878 was 186. To this large number the Registrar-General adds another death; but, in making up my returns, I found the Local Registrar had

YEARS.	Births.	Birth-rate.	Number of Deaths from all Causes.	Death-rate.	Rate of Natural Increase.
1868	263	30·5	118	13·6	16·8
1869	248	26·6	133	14·9	12·8
1870	271	29·5	145	15·7	13·7
1871	275	28·9	151	15·8	13·0
1872	279	28·4	144	14·6	14·0
1873	320	30·6	125	13·3	18·3
1874	290	27·8	156	15·0	12·8
1875	292	27·3	167	15·7	11·6
1876	300	27·3	143	13·0	14·3
1877	351	31·1	170	15·0	16·0
1878	338	29·1	186	16·0	13·1

registered one death twice, a fact which had not been observed at Somerset House. Of these deaths 101 were of males and 85 of females. The death-rate according to the above population was 16·0 per 1,000, or 1 in every 62 persons. The table here given compares the above statistics during the last 11 years—1868-78. It will be seen that the birth-rate in this Sub-district is very low. This may be accounted for by the fact that our

population is so largely composed of the better classes among whom undoubtedly fewer children are born. The death-rate, though apparently the highest in the list, is not really so since the 15·7 of 1875 is calculated upon a higher estimate of the population. The natural increase (*i.e.*, the difference between the number of births and deaths) is 152, giving a rate of 13·1 per 1,000 which is under the average of the above table.

The mortality statistics of this Sub-district have been arranged in the same form for the past twenty years, but I have made a few alterations this year which allows of the more satisfactory grouping of the causes of death than was possible under the old form. The very vague classes entitled Diseases of "Uncertain Seat" and "Not Specified" have been omitted and two important sub-classes of constitutional diseases (Rheumatism and Cancer) substituted for them. Then among the sub-classes of the Zymotic group Quinsy and Carbuncle have been expunged, as of less importance than a sub-division of the fevers into an infectious and non-infectious group, and the introduction of the last two sub-classes in the Zymotic group in the table below, one of which used to be classed with Diseases of *Uncertain Seat* among the non-Zymotic group. Otherwise the table is on the same model except that it divides all the causes of death into five inclusive classes—Zymotic, Constitutional, Local, Developmental and Violence. The table now presented is founded upon the nomenclature of Diseases drawn up by the College of Physicians of London, which appears in the books of death certificates supplied to all medical men, and is in strict agreement with the table used by the Registrar-General. It is in my judgment more useful and representative, as well as more simple and easy to compile.

STATISTICS OF MORTALITY.

PUTNEY AND ROEHAMPTON.		Total Deaths from each Class of Disease, &c., in the Sub-District.		SEX.		AGE.								SOCIAL POSITION.			
				Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	At 10, and under 20 years of age.	At 20, and under 40 years of age.	At 40, and under 60 years of age.	At 60, and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Mer- chants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial & Labouring Classes.
Population (Census) 1871— 9,439.																	
Official population in middle of the year 1878— 11,597.																	
Area in Statute Acres—2,176.																	
DISEASES, And other causes of Death.																	
I. Zymotic	Classes:— Small Pox ...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...
	Measles	7	4	3	6	...	...	...	...	1	...	...	...	2	1	4
	Scarlatina ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria ...	1	...	1	...	1	...	...	...	...	...	...	...	...	1	...
	Typhus and Typhoid Fever	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1
	Remittent and other Fevers.....	2	2	...	1	...	...	1	...	...	...	...	...	...	1	1
	Puerperal Diseases ...	1	...	1	...	...	...	...	1	...	...	...	...	1	...	...
	Croup	5	3	2	2	2	1	...	...	...	...	...	...	1	1	3
	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough.....	4	1	3	1	2	1	...	...	...	...	...	...	2	...	2
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea, Dysentery, & Cholera...	10	6	4	8	2	...	...	...	...	...	...	...	3	3	4
	Syphilis	2	1	1	2	...	...	...	...	...	...	...	...	...	1	1
	Other Zymo- tic Diseases	2	...	2	...	2	...	...	...	...	...	...	...	...	1	1
Totals of Zymotic Class...		36	18	18	20	10	2	2	...	2	..	...	...	9	10	17
II. Consti- tutional	Gout, and Rheuma- tism ...	3	1	2	...	...	...	...	1	1	1	...	...	...	2	1
	Cancer & other Tumours...	7	1	6	...	...	...	...	...	3	3	1	...	...	3	4
	Tubercular ...	32	19	13	4	6	1	2	14	4	1	..	...	5	9	18
	Nervous	28	17	11	8	6	...	...	1	6	4	3	1	5	10	12
III. Local	Circulatory...	12	6	6	...	...	...	...	2	2	7	1	1	3	4	4
	Respiratory...	37	19	18	13	12	1	...	2	1	5	3	1	5	14	17	
	Digestive ...	10	7	3	...	1	1	...	3	4	1	...	1	2	2	5	
	Urinary	2	2	...	...	...	...	...	...	1	1	...	...	1	...	1
	Generative ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Locomotor ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Integumen- tary .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV. Devel- opmental	Premature Birth, Atro- phy, &c. ...	7	4	3	7	...	...	...	...	...	...	...	...	2	1	4
	Old Age	7	3	4	...	...	...	...	...	...	...	7	2	...	4	1
V.	Violence	5	4	1	...	...	...	1	2	2	...	...	...	...	1	4
TOTALS ...		186	101	85	52	35	5	5	25	26	23	15	6	32	60	88	

Zymotic Diseases.—The total number of fatal cases in this class was 36. Five cases of croup represents what was a mild epidemic of that disease in the district. Only *three* fatal cases of the disease occurred during the preceding ten years. For the past three years I have used a table giving a comparative retrospect of the chief epidemic diseases, and I still continue to employ it, with the addition of a line giving the percentage of deaths from these epidemic diseases to deaths from all causes in each year.

YEARS.	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878
Small-pox.	...	...	...	1	...	...	...	...	1	...	1
Measles ...	1	5	4	1	...	2	3	...	1	2	7
Scarlatina.	2	6	3	21	7	...	...	...	3	6	...
Diphtheria	1	2	1	1	1	...	1	4	...	1	1
Whooping-cough ...	...	6	3	1	6	1	...	9	7	...	4
Typhus, &c.	2	5	...	1	...	2	...	...	...	4	3
Diarrhœa & Cholera	5	7	8	6	5	1	6	7	5	7	10
TOTALS ...	11	31	19	32	19	6	10	20	19	20	26
Percentage of Deaths from Epidemics to deaths from all causes.	9·3	23·3	12·4	21·4	13·1	4·8	6·4	11·9	13·2	13·0	13·8

From this table it will be seen that this is one of only three years out of eleven in which a fatal case of Small Pox has occurred in the Sub district. The disease was not so prevalent, however, this year as last, 1877, in which no fatal case occurred. The case was that of an infant a week old, whose mother suffered from the disease immediately

after its birth. About a fortnight afterwards I became aware of the woman having had Small Pox, and inquired after the infant which I was told had lived a week. I found the death had *not* been *registered*, and no cause of death, therefore, assigned, and upon making inquiries, I discovered that the infant had been certified by the medical attendant as a *still born* child, and buried without any ceremony or precaution. I immediately reported the matter to the registrar, who, ultimately, obtained a certificate with the cause of death given as Small Pox. The father of this infant was a *dairyman*, and carrying on his business during the whole time. This case needs no comment. In almost every case of Small Pox, removal to Hospital was effected as quickly as possible, and the house and its contents thoroughly disinfected. In carrying out these precautions after infectious cases, the value of the disinfecting oven acquired by the Parish, as mentioned in last year's report, has been fully appreciated. No other method is to be depended on for securing immunity from danger in the after use of infected bedding, &c. Some of the cases were not removed to Hospital, either from conditions, such as in the case quoted above, or from the disease being too far advanced when discovered. One case occurred in which a direct refusal was given to allow removal. This leads me to urge the necessity for more summary power in dealing with such cases among the lower classes. This may be objected to as class-legislation, but in matters of such vital importance, we cannot afford to be punctilious about class-privileges, or to overlook the fact that a law is sometimes required for the illiterate which is not required for the educated classes. The somewhat rare case of two families occupying the same house is the only one in which removal can be affected by force, and even then only by the order of a magistrate or justice, which cannot be had probably until the time for its use has passed. A certificate signed by two qualified medical men, one of whom should be the Medical Officer of Health, stating the case to be urgent and fit for removal, might be the ground for insisting upon the removal of a

case of Small Pox, and perhaps Typhus Fever. In any case, whether voluntary or otherwise, extreme care should be exercised to have a suitable vehicle for removal. It should be comfortable, clean, not conspicuous in appearance, and, if necessary, artificially warmed. If possible, it should not be a *pauper* ambulance, but capable of being hired by those willing and able to afford the expense. The necessity for having the classes separated in Hospital is also a pressing question.

It will be noticed on referring to the above table that Measles has been more fatal this year than in any other. The disease was very prevalent in the first and second quarters of the year, but generally of a mild type. No fatal case of Scarlatina was registered. Whooping Cough was prevalent during the whole year. Diarrhoea was especially severe in the third quarter of the year, and more fatal this year than in any of the series. The percentage of Zymotic disease to all other causes was 13·8 per cent. The diseases abovementioned are chronologically arranged in the annexed table, which also shows the mean temperature for each quarter.

DISEASE.	1878.			
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Mean Temperature...	41°·5	54°·6	60°·8	41°·6
Small Pox .....	...	1	...	...
Measles.....	1	5	...	1
Scarlatina.....	...	...	...	...
Diphtheria .....	...	...	...	1
Whooping Cough	1	1	...	2
Diarrhoea	2	...	8	...
Fever	1	2	...	...
TOTAL.....	5	9	8	4

The total deaths from Zymotic Disease are no less than 14 in excess of last year, and as the deaths from all

causes are 16 in excess of last year, it will be seen that the increase is almost entirely due to the first class in the table, and, under it, to the sub-classes of measles, croup, whooping cough, and diarrhoea.

II. *Constitutional Diseases*.—This is a new group as regards two of the sub-classes it includes, and these are never absent from our mortality returns. Tubercular diseases, of course, appear in the old form. This year they have been especially fatal.

III. *Local Diseases*.—All the sub-classes of this group have appeared in the old table. Respiratory diseases have been particularly fatal during the past year.

IV. *Developmental*.—The sub-classes of this group have also places in the old table. A decrease in the number of deaths from premature birth, &c., is worthy of notice.

V. *Violence*.—Deaths from this cause are below the average.

YEARS.		1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878
C	Gout and Rheumatism .....	...	...	...	...	...	...	...	...	...	...	3
	Cancer and Tumours .....	...	...	...	...	...	...	...	...	...	...	7
	Tubercular	24	20	18	22	24	19	24	26	26	26	32
	Nervous	16	17	18	19	20	26	39	23	26	29	28
L	Circulatory	9	6	9	9	14	13	8	13	6	8	12
	Respiratory	21	15	31	29	26	21	30	36	23	29	37
	Digestive	8	11	17	8	7	12	11	7	5	12	10
	Urinary	2	...	5	1	5	4	3	8	7	11	2
	Generative	2	1	...	1	...	2	...	1	1	2	...
	Locomotor	2	...	1	...	1	1	...	1	1	2	...
	Integumentary .....	...	...	...	...	...	...	...	...	...	1	...
D	Premature Birth, Atrophy, &c.	9	11	8	11	5	7	7	16	10	8	7
	Old Age	1	4	8	7	3	3	6	11	8	8	7
V	Violence	6	8	4	4	6	5	6	4	7	9	5
TOTALS		104	99	125	118	124	116	146	147	121	148	150

In the annexed table a comparison is shown for the last eleven years. I have been able to preserve most of the classes, omitting two. The totals are the same, however, as in the old tables.

Ages of the Deceased.—The death rate among infants under 1 year was 27·9 per cent. of the whole number of deaths. The rate for the entire district was 30·0 per cent., and for the metropolis 25·2. 87 deaths occurred under 5, being 17 in excess of last year, and constituting 46 per cent. of the whole deaths. The death-rate among infants is too high in our district by at least 2·7 per cent.

A larger number of persons above 80 years died this year than during any of the past 20 years—viz., 15. Of these 10 were females and 5 males. The oldest was a female 92, and the next also a female 89.

Social Position.—As is usually observed in this district the proportion of deaths among the better classes generally exceeds that of the lower. The percentages are as follow:—

Nobility and Gentry	-	-	-	3·2 P. C.
Professional class	-	-	-	17·3 „
Middle class	-	-	-	32·4 „
Industrial class	-	-	-	47·1 „
				<hr/> 100·0 <hr/>

In one case the “rank or profession of the father” was “unknown.” The death was that of an illegitimate child, which occurred at a “home” for children, and was one of three deaths which occurred during the year (one

from *syphilis*). The total number of children is about 12. The wisdom of such an institution may be questioned unless under authoritative control and supervision.

Inquests and Uncertified Deaths.—Six inquests were held during the year.

The following were the Verdicts :—

I.—Accident—drowning, 2 ; fall from cab, 1 ; suffocation in a ditch, 1.

II.—Suicide by drowning, 1

III.—Natural—rupture of blood-vessel, 1 ; inflammation of intestines, 1.

In two cases the certificate of death was given by an unqualified practitioner. In one of these the affected name of “*Cynanche trachealis*,” was given instead of the well-known “*croup*,” as a cause of death. To any one who knows the intimate connection between *diphtheria* and *croup*, it may be open to conjecture whether the name, notwithstanding its pretence of erudition, is correct. The other was a conveniently vague cause of death, viz. :—convulsions. In any case it may be asked what is the advantage of the time, expense and labour of obtaining a medical qualification if the one barrier to the inroad of interlopers is thus broken down. One death occurred without medical attendance, and no inquest was thought necessary.

Sanitary Proceedings.—An epitome of the sanitary work of the year 1878 will be found in Table VI. in the Appendix. It will there be seen that 910 houses were inspected during the year by our active and able Surveyor, to whom I owe many thanks for his always ready and efficient assistance. This number is larger than any yet recorded in our Tables for this Sub-district. The number of

notices served during the year (104) was also greater than we have yet had to record, and shows that the inspections out of which they arose were not unwarranted. The other items of the table do not call for special notice. A new sewer was laid in Lower Park Fields, a pipe being substituted for a very imperfect and offensive brick drain. In those days of the universal application of an air and water-tight channel for the conveyance of sewage, it is a part of the duty of the sanitary authorities to protect the public from the dangers incidental to such a system, otherwise the very perfection of our drainage works menaces the lives and health of the people in a manner which makes them almost look back with regret upon the decease of the old cesspool system. It is evident that the gases evolved from the contents of the sewer must find exit somewhere, and, when a sudden increase takes place in the fluid contents of the sewer, that exit is accomplished with great force. The ventilation of the sewer by openings in our streets is one vast improvement, and the inappreciable amount of mischief which has arisen from these useful albeit oft-stinking apertures is evidence that our fears of the open system of drainage were highly exaggerated when we sealed up the sewers into what were practically elongated cesspools. But experience proves that we cannot depend entirely upon this amount of sewer ventilation, and that gases are still forced through ordinary traps into our houses. I cannot, therefore, too strongly urge local ventilation of *each house trap*, so that a break in the *gaseous* continuity between the sewer and the house may be introduced. A ventilating pipe from the *sewer-side* of the trap, of sufficient size (4 inches) not to oppose more force (from the well-known effects of friction) against the sewer gas than the seal of the trap does, is the most effectual plan. But besides the pipe, or in ordinary dwelling-houses without it, there should also be a space over the *house-side* of the trap freely open to the air, and into this chamber the soil pipe should open not *at* or *under* the surface of the water, but some distance *above* it, so that the

risk of fouling may be greatly diminished, and so that the end of the soil pipe should be open to the air, thus securing the ventilation of that fruitful source of foul gases. The open character of the system of trapping now advocated is its special recommendation, the oxygen of the atmosphere being nature's disinfectant—constant, and powerful—and the probability of even a breath of offensive gas being hardly worthy of consideration. The waste-pipes from cisterns, baths, lavatories, &c., should never pass into the sewer or soil-pipe, or be connected with the trap unless opening over an air chamber as described.

During the year we have had frequent overflows from the sewers owing to heavy rains. This subject has been brought prominently forward during the year by the Surveyor's reports, and the memorial to the Home Secretary founded upon these reports. For further remarks, I refer to the introductory portion of this Report.

Cow and Slaughter-houses, Piggeries, &c. — The annual inspection of the cow and slaughter-houses of the Sub-district was conducted by the surveyor and myself. The slaughter-houses were found—thanks to the precise regulations in force with regard to them—in good condition. But the cow-houses were not altogether satisfactory. With regard to two of them—one for over-crowding and insufficient accommodation, the other for both of these and a want of ordinary cleanliness as well, we felt compelled to oppose the renewal of the licenses. The justices fortunately agreed with us, and withheld the granting of the licenses until the improvements we suggested were promised. In both cases most satisfactory alterations are being carried out. In last year's report I made some special suggestions with regard to this subject. During the past year the Vestry of Kensington made strenuous efforts to obtain some precise

regulations for the control and supervision of the milk-traffic. Fortunately these efforts were successful, for in the spring of this year (1879) the Privy Council, acting on the 34th section of the Contagious Diseases (Animals) Act 1878, made an order empowering the Metropolitan Board of Works (as "the Local Authority") to issue regulations affecting the control of the milk-traffic. The Board were not slow to act upon the authority, and have issued a set of regulations providing for the lighting, ventilation, cleansing, drainage, and water supply of the Cow-sheds and Dairies. These are very good,—in fact, as existing arrangements go, somewhat stringent,—but, as the *Gazette* informed us recently, the order has to be operative only in the case of fresh licenses, and I fear they will not at present be of much service to us. The amount of air-space demanded is 800 cubic ft. per cow. In the cases above cited considerably less than one half that amount was provided. Our demands in these cases were very far short of the regulations now imposed.

The Water Supply.—"Only once during the eleven years, 1868-78, has the Thames water been so much polluted by organic matters as during the year 1878. The Thames was often in high flood, even in summer, and much filthy matter, ordinarily retained in sewers and cesspools during the summer months, was swept into the river." . . . "The organic matters greatly exceed the standard fixed upon by the Rivers Commissioners for water fit for dietetic purposes."

The quotations above are from Dr. Frankland's Report, published in the Registrar-General's Annual Summary, 1878 (pp. 40 and 42). Of this disgusting water we drank during the past year, and still imbibe during the present, filtered by a Company which has the reputation of filtering it worse than any other, and which uses the water during floods for want of reservoirs. Mr. Bateman, of Loch Katrine fame, assures us that we could have pure water in abundance from Wales for £470,000 annually, covering

interest of capital and working expenses, at an annual charge of £150,000. Also, the chalk strata could yield large supplies. If this be true, surely the days of the Thames Water Companies are numbered.

ALEXANDER WALKER, M.D.,

*Medical Officer for Putney
and Roehampton.*

APPENDIX OF STATISTICAL TABLES.

TABLE I.

Summary of Deaths and their Causes, registered in the entire District during 1878, classified according to Sex, Age, and Social Position, and showing also the relative Numbers in each Sub-District.

POPULATION OF ENTIRE DISTRICT, As corrected by the Re- gistrar General.		SUB-DISTRICTS.		SEX.		AGE.								SOCIAL POSITION.																
Census 1871—125,060.						Under 1 year.		From 1 to 5 years.		From 5 to 10 years.		Under 20 years, including all under 10 years.		At 20, and under 40 years of age.		At 40, and under 60 years of age.		At 60, and under 80 years of age.		80 years and upwards.		Nobility and Gentry.		Professional Class, Merchants, Bankers, &c.		Middle and Trading Class, Shopmen, Clerks, &c.		Industrial and Labouring Classes.		
Official Population for middle of year, 1878,—164,812.		Deaths from each Class of Disease, &c., in the entire District.		Clapham—Population in 1871, 27,347, area in acres, 1,233.		Wandsworth—Population in 1871, 19,783, area in acres, 2,478.		Battersea—Population in 1871, 54,016, area in acres, 2,348.		Putney—Population in 1871, 9,439, area in acres, 2,176.		Streatham, Tooting, and Balham—Population 1871, 14,475, area in acres, 3,465.		Males.		Females.														
Area in Statute Acres, 11,695.		DISEASES, And other Causes of Death.																												
Classes:—																														
1. Zymotic	Small Pox ...	19	3	...	14	1	1	8	11	5	...	5	13	5	...	1	1	5	13	
	Measles	84	23	4	39	7	11	48	36	30	33	3	83	...	1	4	6	74	
	Scarlatina ...	39	12	2	23	...	2	21	18	2	19	12	38	...	1	1	8	30	
	Diphtheria ...	19	3	4	8	1	3	11	8	1	10	5	18	1	6	13	
	Quinsy	1	1	1	...	1	...	1	1	
	Croup	39	4	8	22	5	...	22	17	7	26	6	39	2	5	32	
	Whooping Cough ...	149	29	6	99	4	11	66	83	67	74	4	149	5	17	127	
	Typhus & other Fevers	39	5	3	27	3	1	22	17	4	8	8	21	13	2	3	1	4	34	
	Erysipelas...	5	...	1	4	4	1	2	3	...	1	1	
	Metria, Childbirth	7	3	1	3	7	6	1	1	6	
	Carbuncle
	Influenza
	Diarrhoea & Choleraic Disease	182	28	19	112	10	13	93	89	107	50	...	158	3	6	12	3	1	9	30	142
Totals of Zymotic Class.		583	110	48	351	32	42	295	288	224	237	47	523	27	12	18	3	1	23	82	477									
2. Tubercular		501	70	60	309	32	30	250	251	143	65	19	260	131	98	11	1	5	24	86	386									
3. Of Brain and Nerves		503	60	111	247	28	57	269	234	128	94	10	242	46	88	113	14	9	34	100	360									
4. Of Heart		212	45	19	105	12	31	98	114	30	1	4	48	27	61	69	7	7	13	52	140									
5. Of Respiratory Organs		694	106	86	421	37	44	355	339	224	176	12	419	44	75	134	22	11	24	101	558									
6. Of Digestive Organs		150	20	29	60	12	29	66	84	17	4	3	28	22	62	36	2	2	13	45	90									
7. Of Urinary Organs.		42	10	4	19	2	7	26	16	...	1	...	1	8	13	18	2	1	7	11	23									
8. Of Organs of Generation		19	4	4	6	3	2	...	19	...	...	...	...	7	4	8	...	...	1	4	14						
9. Of Joints, Bones, &c.		15	10	1	2	...	2	6	9	2	3	...	9	2	1	3	...	...	1	6	8							
10. Of Skin		1	...	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	1						
11. Premature Birth, Low Vitality, Malformation, &c. ...		177	60	18	76	6	17	92	85	170	5	...	177	...	...	...	...	...	6	50	141						
12. Of Uncertain Seat		136	3	14	79	7	3	42	64	24	3	1	28	10	30	36	2	8	1	21	76									
13. Age.....		147	36	14	67	7	17	51	83	...	...	...	...	...	...	54	87	9	11	29	92						
14. Violence.....		75	7	13	47	5	3	49	26	17	6	5	37	12	21	5	...	...	...	12	63						
15. Not Specified		56	39	1	13	3	...	26	30	4	2	...	7	2	18	27	2	...	8	14	34									
Totals		3275	580	422	1803	186	284	1630	1645	983	600	100	1780	338	483	532	142	53	166	593	2463									

TABLE II.

BIRTHS registered during the year 1878.

SUB-DISTRICTS.	Males.	Females.	Total.
Clapham	556	539	1,095
Wandsworth	386	332	718
Battersea { East—Males, 1120; Females, 1065 { West—Males, 790; Females, 773 }	1,910	1,838	3,748
Putney and Roehampton	175	163	338
Streatham, including Tooting and Balham ...	299	310	609
Total	3,326	3,182	6,508

* * The excess of Births over Deaths in the entire district is 3,233.

TABLE III.

METEOROLOGICAL TABLE FOR LONDON, 1878.

(Deduced from Observations, at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar General by James Glashier, Esq., F.R.S.)

Winter . . . Jan., Feb., March. Spring . . . April, May, June. Summer . . . July, Aug., Sept. Autumn . . . Oct., Nov., Dec.	Temperature of										Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.	Degree of Humidity.	Reading of Barometer.	Weight of a Cubic Foot of Air.	Rain.	Reading of Thermometer on Grass.									
	Air.		Evapora- tion.		Dew point.		Air— Daily Range.		Number of Nights it was																	
	Mean.	Diff. from Average of 107 Years.	Mean.	Diff. from Average of 37 Years.	Mean.	Diff. from Average of 37 Years.	Mean.	Diff. from Average of 37 Years.	Mean.	Diff. from Average of 37 Years.							Mean (State = 100).	Diff. from Average of 37 Years.	Mean.	Diff. from Average of 37 Years.	Mean.	Diff. from Average of 63 Years.	Amount.	Diff. from Average of 63 Years.	At or below 30°.	Between 30° and 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
1878.	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			in.	in.	grs.	grs.	in.	in.	Sums.			°	°
YEAR	49·6	+1·0	+0·3	46·8	+0·2	43·8	+0·2	14·6	—1·3	0·299	+0·004	3·4	—0·0	81	0	29·751	—0·086	541	—1	29·2	+3·8	81	114	170	12·2	60·2
First Quarter	41·5	+2·8	+1·7	39·1	+1·1	36·3	+0·8	10·8	—1·1	0·214	+0·006	2·5	+0·0	82	—2	29·990	—0·023	555	+3	3·1	—2·0	39	34	17	13·5	48·0
Second do. .	54·6	+2·3	+1·7	50·9	+1·7	47·3	+1·9	18·7	—1·4	0·328	+0·021	3·7	—0·2	77	+1	29·684	—0·104	534	—4	13·2	+7·6	8	25	58	23·0	54·5
Third do. .	60·8	+0·9	+0·6	57·1	+0·8	53·9	+1·0	18·5	—1·4	0·418	+0·014	4·7	—0·2	78	+1	29·756	—0·044	528	—2	6·5	—0·9	0	12	80	31·6	60·1
Fourth do. .	41·6	—2·0	—3·0	40·0	—2·7	37·9	—2·9	10·6	—1·4	0·235	—0·025	2·7	—0·3	87	—1	29·573	—0·173	547	0	6·4	—0·9	34	43	15	12·2	52·1

In this Table, + and — respectively signify that the numbers in the preceding column are above or below the average to the extent of the quantities to which these signs are prefixed.

TABLE IV.

Showing the total Deaths from the Principal Epidemic Diseases registered in each Sub-District, and in the entire District, and the relation which they bore to the total Mortality in the several years 1868—78.

YEARS.	DEATHS FROM THE SEVEN PRINCIPAL EPIDEMICS IN EACH SUB-DISTRICT.					ENTIRE DISTRICT.		
	Clapham.	Battersea.	Wandsworth.	Putney.	Streatham.	Total Deaths from the Seven Epidemics.	Total Deaths Registered from all causes.	Per centage of Deaths from the Seven Epidemics to Total Deaths.
1868	99	194	64	14	28	399	2168	18.4
1869	117	247	94	31	27	516	2393	21.5
1870	119	404	113	19	37	692	2659	26.0
1871	178	463	103	32	31	807	2867	28.8
1872	128	220	47	20	31	446	2421	18.4
1873	65	205	43	6	32	350	2570	13.6
1874	105	238	52	10	26	440	2796	15.7
1875	74	307	46	20	25	472	3096	15.2
1876	86	340	71	19	31	547	3154	17.4
1877	55	280	57	22	25	439	2991	14.2
1878	103	322	38	26	42	531	3275	16.9

. The Diseases included in the above Table constitute, as in the Registrar-General's Returns, the principal maladies only of the Zymotic class—viz. : Small Pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Diarrhœa and Cholera, and Fever.

TABLE V.

Cases of Sickness amongst the Poor under the treatment of the Union Medical Officers, with the Deaths from each class of Disease, during the year ended 31st December, 1878. Compiled from the District Medical Relief Books.

SUB-DISTRICTS.		Total Cases of Sickness treated in each Sub-district.		1—Small Pox.		2—Measles.		3—Scarlatina and Malignant Sore Throat.		4—Whooping Cough.		5—Diarrhoea and Dysentery.		6—Cholera.		7—Fever.		8—Erysipelas.		9—Puerperal Fever.		10—Lung Diseases except Phthisis.		11—Phthisis.		12—Hydrocephalus, Atrophy, Scrofula, and Convulsions of Children.		13—Other Diseases.		14—Violence, Privation, and Premature Birth.		Total Deaths in each Sub-District	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.				
Clapham	...	...	877	29	...	22	8	16	...	5	...	18	2	1	...	179	1	2	...	...	...	58	9	11	8	20	12	482	14	34	1	55
Wandsworth	...	...	642	9	...	28	...	5	...	3	...	38	1	...	...	7	1	2	...	...	...	151	9	2	2	...	...	350	11	47	...	24
Battersea	{	East	...	905	24	4	...	4	1	22	18	1	3	220	5	31	3	6	3	548	6	25	1	20
		West	...	272	25	...	4	...	1	...	3	...	14	6	...	2	51	5	9	...	3	1	145	5	9	...	11
Putney and Roehampton	...	...	176	1	...	2	...	...	...	...	...	4	1	...	...	5	...	...	...	...	...	34	1	10	1	1	...	112	...	8	...	3
Streatham, including Tooting and Balham	}	...	91	5	...	10	...	...	...	...	...	3	2	...	...	...	...	4	...	...	...	18	6	3	2	1	...	50	2	4	...	12
Totals		2963	93	...	66	8	25	...	15	1	99	6	1	...	215	3	13	532	35	66	15	30	16	1637	38	12	2	125

* * The ratio of deaths to cases treated is 4·2 per cent.

TABLE VI.

SUMMARY of the Sanitary Operations in the entire District during the year 1878.

	Clapham.	Battersea.	Wandsworth.	Putney and Roehampton.	Streatham, including Tooting and Balham.	TOTALS.
Number of Houses and Premises in- spected	2100	3,322	425	510	463	7,220
1st Notices served	300	688	70	104	21	1,183
2nd Notices served	53	52	...	27	...	132
Cesspools emptied and cleansed ...	...	...	...	1	...	1
Cesspools abolished	40	6	2	3	3	54
Waterclosets con- structed	17	143	10	4	348	522
Houses supplied with water ...	3	11	8	17	348	387
Drains constructed or connected with Sewer	100	424	151	60	144	879
No. of feet of New Sewers and Branch Drains	2,866	8,697	3,986	2,495	9,596	27,640
Drains repaired or trapped, or ob- structions re- moved	120	191	21	71	49	452
Open Ditches, Ponds, &c., cleansed ...	...	...	4	1	1,500 ft.	5 & 1500 ft.
Dust-bins provided	186	297	10	7	345	842
Pig Nuisances re- moved	20	17	19	3	10	69
Accumulations of Offal, Manure, &c., removed ...	7	27	14	11	13	72
Unwholesome and di- lapidated Houses cleansed or re- paired	46	105	10	5	12	178
Cases investigated by Magistrates...	14	17	10	3	...	44
Compulsory Orders obtained	14	9	1	3	...	27
Compulsory works executed	14	9	...	3	...	26
Works remaining in abeyance from various causes ...	...	...	...	...	...	...

Summary of the Society's Operations in the United States during the year 1978

Category	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334
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